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WAR MANUAL

OF THE GREAT 1914
UROPEAN CONFLICT

100 Illustrations, Maps
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THE WORLD'S WORK
WAR MANUAL
OF
THE GREAT CONFLICT OF
1914

WITH 100 ILLUSTRATIONS
MAPS AND A COMPLETE
REFERENCE INDEX
OF NEARLY 1300
SUBJECTS

GARDEN CITY NEW YORK
DOUBLEDAY, PAGE & COMPANY
1914

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THE WORLD'S WORK
WAR MANUAL

ARTHUR W. PAGE, EDITOR

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"THE CONQUERORS" — By Pierre Fritel

IN THIS GRIM ALLEGORY OF THE KINGLY POMP AND COMMON MISERY OF WAR, THE CENTRAL FIGURE IS JULIUS CAESAR; ON HIS LEFT HAND IS NAPOLEON AND ON HIS RIGHT HAND, HANNIBAL; AT THE LEFT SIDE OF THE GROUP IS RAMESES II AND BEHIND HIM ATTILA, KING OF THE HUNS, CALLED "THE SCOURGE OF GOD"; AT THE RIGHT SIDE OF THE GROUP, ALEXANDER THE GREAT, AND BEHIND HIS SHOULDER, TAMERLANE

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WORLD BATTLES BEING FOUGHT AGAIN

TRAFALGAR 1805

IN WHICH ENGLAND DEMONSTRATED THE TWO-POWER STANDARD OF HER NAVY AND KEPT THE SUPREMACY OF THE SEA

WATERLOO 1815

ENGLAND HAS NOW FOR THE FIRST TIME SINCE WATERLOO SENT TROOPS TO WESTERN EUROPE, LANDING THEM IN BELGIUM TO KEEP THE KAISER OUT OF ANTWERP AS THEY KEPT NAPOLEON OUT BEFORE

KÖNIGGRÄTZ 1866

THE BATTLE THAT ENDED THE WAR WHICH PRUSSIA BEGAN TO UNIFY GERMANY JUST AS AUSTRIA-HUNGARY ATTACKED SERVIA TO UNIFY ITS DOMINIONS

BATTLES OF THE FRANCO-PRUSSIAN WAR

TO BE FOUGHT AGAIN ON THE SAME GROUNDS FOR THE SAME STAKE, WHICH IS ALSACE-LORRAINE AND THE DOMINANT POSITION IN EUROPE

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THE nations of Europe are interrupting history again, fighting over the old battles on the old battlefields. One hundred years ago Napoleon ranged himself and the greatest army of the age against all Europe, and almost his most cherished ambition was the breaking of the supremacy of England on the sea. England then as now had a "two-power standard" for her navy. It was demonstrated at Trafalgar where Nelson met and defeated the combined forces of the French and Spanish fleets. England sent an army into Belgium against the Emperor Napoleon in 1815. There has been no English army in western Europe since, until now when the Emperor William invades Belgium and threatens Antwerp, the best base of operations against England. England again has an army trying to do again what was done at Waterloo. In 1866 Bismarck went to war with Austria because he felt that such a war would unify Germany. In 1914 Austria goes to war with Servia to solidify its heterogeneous dominions.

Forty-four years ago Prussia went to war with France for Alsace and Lorraine and the dominant position in Europe. For the same stake over the same ground the same people are fighting to-day.

With the declaration of war the world turned back to Trafalgar, to Waterloo, to Königgrätz, to the Franco-Prussian War. Nothing has been settled. These same battles are being fought again. The names are a little different, the battlefields a few miles apart, but the same principles are there. In the paintings of these by-gone fights is a vivid picture of the glory, heroism, death, ruin, waste, and futility of it all.

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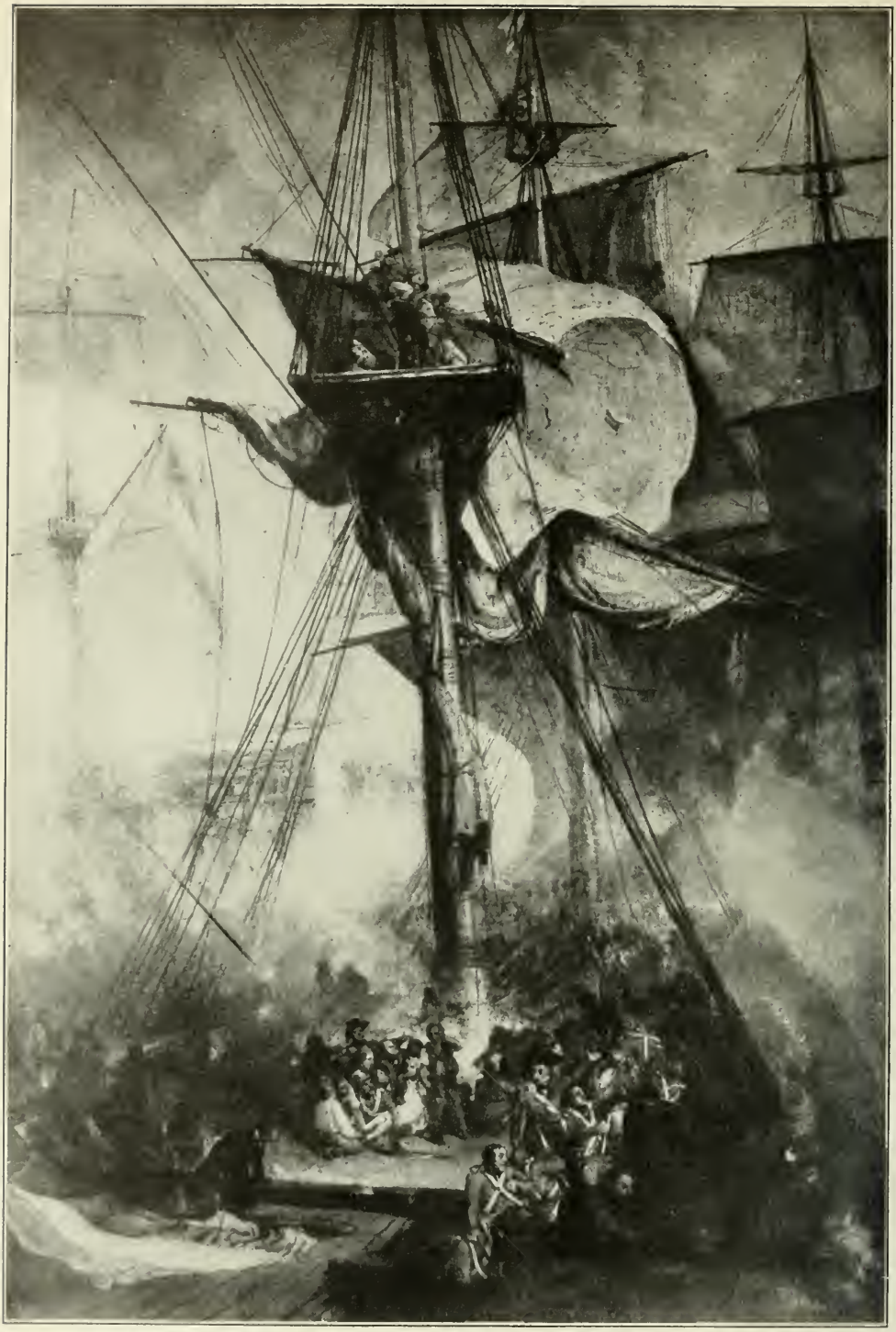

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ENGLAND'S TWO-POWER STANDARD 100 YEARS AGO

THE DEATH OF NELSON AT TRAFALGAR, WHERE THE ENGLISH FLEET DEFEATED THE FLEETS OF FRANCE AND SPAIN AND PUT AN END TO ANY DANGER OF INVASION AND OPENED THE SEAS TO BRITISH COMMERCE. ENGLAND HAS THE SAME PROBLEM NOW

By permission of the Berlin Photographic Company

THE RETREAT FROM WATERLOO

THE BATTLE IN BELGIUM AGAINST EMPEROR NAPOLEON, A HUNDRED YEARS AGO. FOR THE FIRST TIME SINCE THEN ENGLAND, AGAIN AS ONE POWER OF A GROUP OF ALLIES, HAS TROOPS IN WESTERN EUROPE, THIS TIME TO FIGHT EMPEROR WILLIAM

By permission of the Berlin Photographic Company

KÖNIGGRÄTZ, WHERE FRANCIS JOSEPH FOUGHT PRUSSIA

BISMARCK ATTACKED AUSTRIA-HUNGARY IN 1866 TO UNIFY GERMANY, AS AUSTRIA-HUNGARY HAS NOW ATTACKED SERVIA TO UNIFY ITS DOMINIONS

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THE BAVARIANS BEFORE PARIS, 1870

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THE BATTLE OF MARS-LA-TOUR

IN THE FRANCO-PRUSSIAN WAR THE LARGEST NUMBER OF GERMANS UNDER ARMS AT ONE TIME WAS 835,000. IN THE PRESENT WAR EMPEROR WILLIAM HAS AT LEAST 4,000,000 MEN AVAILABLE

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THE DEFENCE OF CHAMPIGNY

IN THE FRANCO-PRUSSIAN WAR, WHICH LOST FRANCE ALSACE AND LORRAINE AND GAINED GERMANY AN ENEMY WHICH INSURED THE FRANCO-GERMAN WAR WHICH IS IN PROGRESS NOW

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THE FATAL CHARGE OF THE FRENCH AT REICHSHOFFEN

IN THE FRANCO-PRUSSIAN WAR, THE WAR IN WHICH NAPOLEON III LOST HIS POSITION AS THE DOMINANT PERSONALITY IN EUROPE AND BY WHICH FRANCE AGAIN BECAME A REPUBLIC

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"THE PIECE IN DANGER"

THE CAUSES OF CONFLICT

THE nations of Europe had each marked the course of their ambitions — and these courses crossed. The Kaiser's Government believes in the Pan-Germanism that means German influence extending through the Balkans to the Ægean Sea, Germany in control of the Dutch and Belgian harbors, in a further development of the German colonial empire, in the maintenance of the divine right of kings, and German supremacy on the sea. Russia, too, has a constructive programme. Some day Russia hopes to reach the open sea on the Scandinavian peninsula, to gain access to the Mediterranean either by ownership or control of the Balkans and to open the Black Sea by the possession of Constantinople. Nor has Russia given up hope of an open port on the Pacific and the control of Manchuria wrested from them by the Japanese. Moreover, Russia even more than Germany is the stronghold of autocracy. The Russian and German ambitions only clash vitally in the Balkans.

In contrast to these constructive desires of Germany and Russia, England has chiefly a defensive attitude. Her empire encircles the globe and she is in command of the sea. She would like to maintain the balance of power as it is. She feels that she would not be safe if Germany had the ports of Belgium or Holland, nor would she welcome her present ally, Russia, in Norway or Sweden. England's efforts to keep any strong European power out of Constantinople maintained the Turk in Europe beyond his time. She does not want a Russian or German naval base at Constantinople to threaten her Mediterranean supremacy. Of the two, however, she prefers Russia to Germany. In the Far East England is allied with Japan, which blocks the Russian advance into Southern Manchuria. Moreover, liberal England believes very little in the autocracy either of Germany or of Russia. But though Russia is still the same Russia in aims against which Kipling warned England when he wrote: "Make ye no truce with Adam-zad, the bear that walks like a man," it is not the same Russia in activity. Since the Russian-Japanese War, Germany, not Russia, has threatened the balance of power which England cherishes.

With one great exception France, like England, is also content with what she has and is busy with its development; and since the French and English soldiers met at Fashoda on the upper Nile in 1898 their ways have not crossed. The one great exception to the content of France has been the German possession of Alsace-Lorraine. France wants revenge for 1870-71, and French Republicanism is not a good neighbor to German autocracy.

Germany's aims, therefore, come into vital conflict with the aims of Russia, France, and England. That is why England has made a truce with the Bear and joined with its ancient enemy France.

Germany's ambitions have isolated her from the rest of Europe, except Austria. In Austria, Germany has found "a brilliant second" for its policies, although the second has of late tried to play first part. England and Russia oppose Austria, for they feel that it is playing the German game in the Balkans. Italy, too, has added to a historic animosity a dislike of Austria's Balkan policy, for Italy itself wants not only the ports of Albania, but the Austrian ports of Trieste, Pola, and Fiume, at the head of the Adriatic.

Such are the conflicting national ambitions which have for a decade kept Europe talking of the war, which is now upon us.

WHY THE NATIONS FIGHT

BY

ALBERT BUSHNELL HART

(PROFESSOR OF HISTORY, HARVARD UNIVERSITY)

FOR the wreck of this conflict which will increase from day to day, is there any good, clear, inevitable reason? No Napoleon has forced his neighbors to war. No Bismarck has racked Prussia in order to make Germany. No Agadir incident has set off the match. No invincible horde is advancing out of Asia. Europe got through two Balkan conflicts without general war.

It is no explanation to say that this king or that emperor or the other president or prime minister wants war. Sovereigns nowadays are, at their strongest, only train-dispatchers who can order a switch thrown in one or another direction. No monarch can go against the spirit of his people. Every country included is united in what is considered a natural war. It is not a war of dynasties or statesmen or military

leaders. It is not a war of revenge for Archduke Franz Ferdinand.

Questions of trade and markets play a large part in the drama — but it is not the love of money which leads great navies to spend 5,000 million dollars, in order to secure a trade in which the profit cannot be more than 200 millions a year. This is a war of peoples and not of interests.

The military spirit, commercial expansion, desire for territory, and the self assertion of great nations are things that in the long run may overcome all the checks of Parliaments and statesmen and The Hague conferences. But none of them could have brought about the fearful conditions of the year 1914. The strongest and determining reason for war is the growth of racial antipathies; the world has at last realized that the political boundaries of Eastern Europe cut across older and more persistent divisions of race, language and religion, and thus bring conflicts with nations and between them.

Europe is a mosaic of races. In most countries the race elements have amalgamated or have ceased to conflict with each other. In this crisis, the Irish in Great Britain and the Walloons in Belgium have sunk their consciousness of race in their consciousness of nationality. Eastern Europe still bears the marks of the successive waves of barbarian invasion out of the heart of Asia. The Hungarians and the Bulgarians are both races that forced their way into Europe where they found the Slavs, the Germans, and the Latins. Then the Slavs received the fearful weight of the Turkish invasion and for centuries lost independence and vitality.

Yet till recently there was no strong race antipathy between Germans and Slavs. Germany and Russia have not been at war with each other since the Czar Peter the Third saved Frederick the Great in 1762. Till forty years ago the Bohemians and Germans got on tolerably well side by side. The race strains which are pulling Europe to pieces at last have showed themselves by rousing country against country; and inside Austria. There the antipathy between Germans and Slavs has grown so bitter that, in the judgment of the Austrian statesmen, the Germans must fight Slavs either outside of Austria or inside of Austria. They have

THE GERMANS AND THE SLAVS

WHOSE RACIAL ANTIPATHIES AND WHOSE CONFLICTING AMBITIONS TO BE TERRITORIALLY AND COMMERCIALLY SUPREME IN SOUTHEASTERN EUROPE ARE LARGELY RESPONSIBLE FOR THE WAR. IT IS NOTEWORTHY THAT THE SLAVIC PEOPLES FAR OVERLAP THE POLITICAL BOUNDARIES, EVEN IN EASTERN GERMANY

preferred to make the issue perfectly clear by declaring war on the one markedly successful and independent Slav state outside of Russia.

The challenge aroused Russia, but did not directly concern other Powers farther west. Most of them, to judge from the proclamations and official communications, are fighting only in self-defense. In the midst of the appalling misery of the time, there shines out a comic gleam in the exchange of discourtesies about mobilization. As soon as the trouble began, every one of the four Central European Powers began to the court of war, the only one that executes its own decrees.

Perhaps this war is what Tolstoi thought all wars to be, merely a blind movement of human beings, they know not why, and they know not whither, like a foray of soldier ants. Nevertheless, reasons for war can be found in the make-up of Europe, in the character, in the aims and ambitions of the great Powers. The continent of Europe is divided into ten groups of nations. Four of these are the minor groups of the Balkans; Scandinavia; the neutralized Powers of

THE RACES IN AUSTRIA-HUNGARY

SERVIA'S SUCCESS IN THE BALKAN WAR ACTED AS A GREAT STIMULUS TO THE PROPAGANDA FOR A GREATER SERVIA AND THE REVOLT OF AUSTRIA'S SOUTHERN SLAV PROVINCES. IN AUSTRIA ITSELF AROSE THE IRREPRESSIBLE CONFLICT BETWEEN TEUTON AND SLAV

move troops with all possible speed toward its threatened frontiers, at the same time calling the world to witness that they were not "mobilizing." Every nation threatened every other, hoping thus to frighten its neighbor into giving way without war. The responsibility for the war rests upon no individual and upon no one nation, but upon the interlocking of Europe commercially, territorially, and racially, so that one Power after another was drawn in the maelstrom. Perhaps statesmen felt that the cleaning time had come at last; and that the rival claims and pretensions must be settled by

Holland, Belgium, and Switzerland; and Spain and Portugal. Alongside these and overtowering them in wealth and military strength, are the six great Powers, Italy, Russia, Great Britain, France, Austria-Hungary, and Germany.

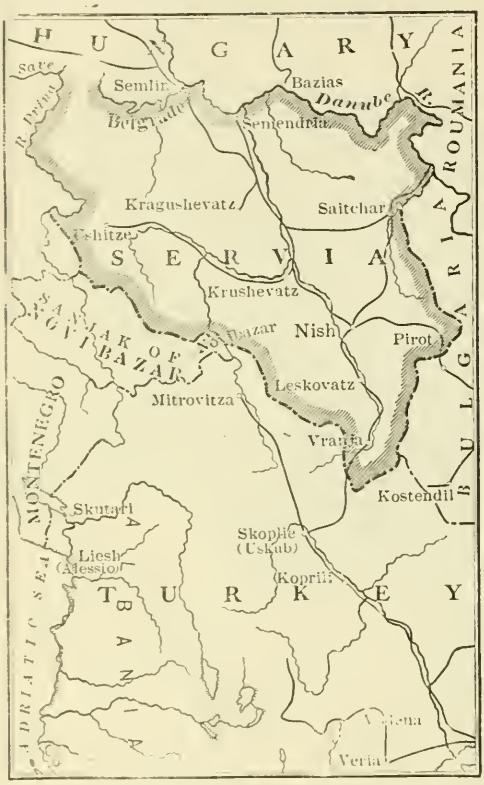
Europe has for some centuries been divided between four main religions. The Moslems up to two years ago still counted eight millions of Turks, Bosnians, and Albanians, but there are now only about three or four millions left in Europe. The Protestants, principally Germans, English, Swiss, and Hungarians, are about 100 millions. The Roman Catholics in all the Latin

countries, Southern Germany, Croatia, Albania, Bohemia, and in Russian Austria and Russian Poland are about 180 millions. The Greek Catholics include Russia, the Balkan countries, and a few provinces in the Austrian Empire, but by no means all the Slavs. Their number is about 110 millions.

Differences of religion have caused many European wars, but during the last hundred years every European country has been obliged to tolerate churches other than that established by the State. These sects are attached to their country. Protestant and Roman Catholic Magyars are a unit when it comes to a discussion of their place in the Austro-Hungarian Empire; and there is no visible difference between the Catholic Bavarians and the Protestant Prussians in their support of their country in the present war.

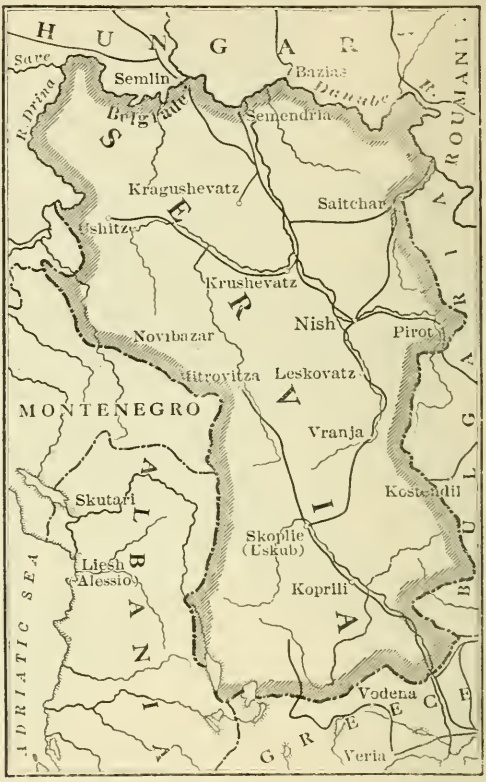
Four comparatively small groups of people of Asiatic origin are the Finns, Magyars, Bulgarians and Turks, in all about 14 millions. The Scandinavian group is small, though effective, and the three countries together, Norway, Sweden, and Denmark, have ten and a half million people. The English, Scotch, Welsh, and Irish, between whom there seems to be no race division in time of national danger are 46 millions. The Latin powers, Spain, Portugal, France, Belgium, and Italy count 106 millions. The 2½ million Greeks are akin to the Latin. The Germans in Germany, German Switzerland, and Austria-Hungary are a compactly situated mass of 79½ millions. The Slavs of Russia, including the Poles, and not the Finns, together with the Roumanians (who claim to be a Latin race, but seem to have more Slav blood than anything else), the Servians and the various Slavic elements in Austria-Hungary are in all 111 millions.

Before sketching the status of the great powers, the place and influence upon the war of the minor groups must be noticed. The Balkans is an example to the world of the immense difficulty of carrying on states which contain large numbers of people, who in race and in sympathies belong to some neighbor. The second Balkan War in 1913 came about solely because there were so many Bulgarians in Greek and Servian territory, and so many Greeks and



SERVIA BEFORE THE BALKAN WARS

SEPARATED FROM MONTENEGRO BY THE TURKISH TERRITORY, THE SANDJAK OF NOVIBAZAR IN WHICH GERMAN AND AUSTRIAN INFLUENCE PREDOMINATED UNTIL THE SUCCESS OF SERVIA IN THE BALKAN WAR ENABLED HER TO INCREASE HER TERRITORY



SERVIA AFTER THE BALKAN WARS

WITH ADDED PRESTIGE WHICH ENCOURAGED THE GREATER SERVIA PROPAGANDA AGAINST AUSTRIAN RULE IN BOSNIA AND ADDED TERRITORY CONNECTING WITH MONTENEGRO AND FORMING A SOLID SLAV BARRIER ACROSS THE PAN-GERMAN MARCH TO THE EAST

Servians in Bulgarian territory. No geographical boundary line can be made to fit with these race groups The effort to adjust the matter by killing off villagers of different race from that of the conqueror of a region was so thorough-going as to shock mankind, but not drastic enough to solve the problem. If the war is primarily a fight between the organized Slavs and the Germans, the Balkans are not much interested, since there are only about five million Slavs south of the Danube. Emperor William last year called for a larger army and a bigger war chest, because he felt that the armies of the Balkans altered the balance of European military power. If the Balkan Powers could have stood together till this year, Austria could not have declared war on Servia. Bulgaria and Greece may easily be drawn into the conflict, particularly if, as seems likely, Turkey makes war on the German side; and when the general peace comes, it must include a settlement of the Balkan question.

The Scandinavian Powers are unwilling sharers in the danger of war because two of them control the natural entrance into the Baltic Sea; and the Swedes are convinced that Russia wants to subvert them. Portugal is an ally of England, and proposes to join in the war. Spain may very likely enter the lists if France seems to need aid.

The three little neutralized Powers, Belgium, Holland, and Switzerland, have already learned what "neutrality" means between desperate nations. The Emperor William a few months ago was much pleased by the Swiss manœuvres, because they prove that he could "spare two army corps." The remark meant of course that neither France nor Germany could safely force a way through Switzerland. It meant also that the Germans intended to use Belgium as their highway into France, treaty or no treaty, international law, or no international law. Holland has no protection from Germany except the troops and ships of the nations that comprise the Triple Entente.

ITALY

Italy joined the Triple Alliance about twenty years ago, because she was then on very bad terms with France. To Germany and Austria the Italian navy and merchant marine were a special attraction.

Italy has three territorial objectives which must largely affect her position: (1) on the other side of the Adriatic Sea, a decided conflict of interest with Austria has developed; (2) Italy desires the extension of her colonies, as Tripoli is at present her only valuable colonial possession. Italy desires to annex Trentino, an Italian-speaking district in the southern Tyrol, and Trieste, the population of which is Italian. But they might as well attempt to pluck out the right eye of Emperor Francis Joseph as to take Trieste for it is the only seaport in the Austrian half of the Austrian-Hungarian Empire.

Russia has for centuries been a reservoir of compressed political gas, pushing in every direction for an outlet. When Peter the Great came to the throne two centuries ago his country was almost shut off from the Baltic by the Germans and Swedes — and the Tartars cut him off from the Black Sea. War after war was necessary to gain free access to the Black Sea and the Baltic Sea. Meanwhile the Russians pushed into the thinly settled area of North Asia until they reached the Pacific.

The obvious line of approach to the world's commerce for Russia is through the Bosphorus and the Ægean Sea to the Mediterranean. That route is held by the Turks, who for the last fifty years have been backed up by first the English and French, and then by the Germans.

Russia has gradually torn away fragments of the Turkish Empire along the Black Sea and has aided in building Roumania and Bulgaria out of the ruins of Turkish provinces. In 1878 a Russian army marched till it was in sight of the minarets of Constantinople, but the English under Disraeli compelled Russia to give up the fruits of that victory. As the great Slav Power, Russia is not always keenly interested in the expansion of small Slav Powers; but it has for years urged the policy of pan-Slavism, whatever that may mean. If the issue of German against Slav is clearly raised, as it seems to be in this war, Russia could no more keep out of it than she could forbid her subjects to attend the Greek Catholic Church.

It is a singular fact that till 1914 there never had been a serious war between Russia and Austria. Though the Russians were defeated by the French, English, and Piedmontese in 1855, and by the Japanese in 1905, they have in many wars shown military talent and a fine fighting force. Russia is the only nation which without the assistance of allies defeated the great Napoleon.

In case of victory the Russians will certainly demand Constantinople, which means that the Turk would be finally shoved out of Europe; England and France would probably favor that solution of the Near-Eastern question. If Sweden should be involved in the war, Russia may claim part of that country. Some "rectification of the frontier" might be exacted from Austria. On the other hand, if Russia should be seriously defeated, the Finns and the Poles may rise. As late as 1863 there was an insurrection in Poland. Otherwise it is not likely that the great colossus of Europe will be under any circumstances put in a less favorable position than that which she occupied at the beginning of the war.

England in this contest is not fighting to gain anything new, but simply to hold what she has: first of all her commerce. And there seems a reasonable chance of protecting English merchantmen while German and Austrian must lie in port or be captured. The Japanese have undertaken to look after English interests in Asia.

The English hope to shut the German navy up in the North Sea, for without a supply of food stuffs from other parts of the world England would be starved out after a few months; while France, Germany, Austria, and Russia can probably feed themselves and their troops. The English colonies scattered all over the world are a bait to the Germans. Canada, Australia, and probably South Africa can take care of themselves, but India is a problem which nobody at present can solve. Germany, Russia, or France can be badly defeated without losing much territory or dropping a place in the scale of nations; but not so with Great Britain. A victory of the German powers would infallibly deprive Great Britain of a part of her colonies, a large portion of her trade, and the prestige of being the greatest sea power in the world.

FRANCE

Of all the great powers France is the freest from internal dissension. The 207,000 square miles of the main country has but 40 millions of population; and the French have been almost in despair because Germany grows so much faster and therefore has so many more recruits. The colonies of France in Africa and Eastern Asia are nearly as large as the United States and its dependencies; but they contain only 41 millions of an indifferent population. Almost the whole population of France, so far as it has religious affiliations, is Roman Catholic.

France is supposed to be the thriftiest large country in Europe, and is able to raise nearly a thousand million dollars a year for national and local public purposes; but the debt is more than six years' national income, and it will be much increased by the war. The country has had a splendid foreign trade of 1,700 million dollars of exports and 2,000 million of imports, and it owns a considerable merchant marine.

If the central powers should get control of the sea it would go hard with the French colonies, which it is supposed the Germans hope to secure. What the French expect from the war is first of all the recovery of Alsace-Lorraine which the school children are taught to consider two French provinces temporarily in possession of a foreign power. It was a tactical mistake for the Germans to wrest from France provinces which have shown themselves so French in feeling, that they have never been allowed to have a popular government. The French frontier sweeps about within sight of Metz, which is one of the strongest fortresses in Europe. If the French have the physical power, and their allies will back them up, Alsace-Lorraine will be claimed as their reward at the end of the war.

A second important object of France is to wipe out the fearful disgrace of the war of 1870 and 1871. Napoleon the Third put his country in a position to be disciplined; but it was the French nation, the French people, and the French army that were defeated and humiliated. They mean to prove to mankind that they cannot be so treated a second time.

AUSTRIA-HUNGARY

The centre of the crater in European affairs is Austria-Hungary, through which for ages has run the boundary between the German and the Slav races.

The Austrian-Hungarians have but one seacoast stretching between the two ports of Trieste and Fiume, beside the mountainous coast of Dalmatia, which has a Serb population. Nevertheless she has developed a creditable commerce and her ships run to Constantinople, to India, and to New York. A main object of Austria in this war is to push that coastline farther south, wiping out Montenegro and part of Albania; or even to follow out a plan cherished for half a century to obtain a tongue of land between Bosnia and the Ægean Sea, with the port of Salonica.

The three objectives of Austria in the war therefore appear to be: (1) The "execution" of Servia as a lesson to all Serbs of what will happen to any head that raises itself above the level; (2) the extension of territory southward; (3) The holding of the Slav population, partly by force, and partly by trying to bring those people to feel that their country is in danger. For it must never be forgotten that both the Balkan people and the Austrian-Hungarian Slavs if they cannot be independent will at least not be Russian. Probably every group of Slavs inside the Austrian-Hungarian boundary will stay there, rather than incur any such danger.

Whatever happens to any other power, Austria-Hungary is playing a desperate gambler's game in this war. The Magyars who have long hated and thwarted the Germans, have now united with them to keep their Slav fellow citizens in order. If Austria and Germany are victorious, the empire will be safe fort he time; although no one outside the boundaries of that empire can guess the possibility of Slav risings during the war; or the likelihood that the Slavs will take to heart the lesson that they must remain inferior and subordinate in Austrian-Hungarian affairs.

GERMANY

By common consent the most formidable military power in Europe is Germany. In area (209,000 square miles) it is almost exactly equal to France, but the population is 65,000,000 of whom 52,000,000 are Germans, and 2,000,000 are Slavic Poles. With that exception there is nowhere in the land a seriously discontented race element. In its colonies, which are chiefly African, the million square miles contain only 24,000 white people. In the Empire there are 40,000,000 Protestant, 24,000,000 Roman Catholics and half a million Jews.

The national taxes are nearly 1,000 million dollars a year and the debt is about twelve years' income. The country has a magnificent system of railroads, and canals, and a splendid mer-

chant marine of more than 3,000,000 tons; and an inward and outward trade of 5,000 million dollars. No country has ever made such efforts to carry on business, government, and military affairs in a scientific and systematic way.

Germany's objects in the war are perfectly clear. First of all, to give notice to all the Germans in Europe, to the Magyars, and to the German, Austrian, and Hungarian Slavs who "stay good," the assurance that Germany will fight for them and with them. In the second place the Slavs outside those two empires are notified that the Germanic power is massed against them. In the third place, if only Germany can get the command of the sea (in which Austria can be of very little aid) the French and English colonies must fall. A decided land victory over the allies in Europe might justify the demand for possession of colonies that had not been taken by the fleet. Germany is not likely to look for Russian territory, except perhaps one of the German speaking provinces on the Baltic; but if she can she will insist upon a free hand in Asia-Minor, either by an understanding with Turkey or by crushing Turkey. Finally, if Germany is able to bring it about, Holland will almost surely be annexed. It is the natural distributing point of German commerce, and with Holland goes a tidy lot of Asiatic islands. A victorious Germany will not go into any peace negotiations congress without bringing home a substantial conquest of colonies.

THE ALLIANCES THAT MADE THE WAR

BY

ROLLO OGDEN

(EDITOR OF "THE NEW YORK EVENING POST")

THERE may be doubt who lighted the match that has wrapped Europe in a flame of war, but there can be no question what constituted the material of conflagration. It was the grouping of the great Powers. They were as a series of powder magazines so connected that when one was exploded the others blew up. Fire started in the Triple Alliance set the Dual Alliance ablaze; and the Triple Entente speedily showed that it, too, was highly inflammable. The verdict of history will agree with the calmest contemporary judgment in holding that but for these various alliances, these balancings of the nations, these arrangements, treaties, understandings, Europe could not have been suddenly turned into a vast shambles.

It would be hard to find a swifter conception or clearer statement of this truth than in the columns of a leading organ of German public opinion, on the very eve of the war. The *Frankfurter Zeitung* of July 27 had a searching analysis of the perilous situation created by the savage ultimatum of the Austrian Government to Servia. The significance of that act penetrated the European mind much more quickly than it did the American. This was partly because the press of the United States was badly served by its foreign correspondents in that affair. They cabled almost nothing about it, even days after every intelligent newspaper in England, in France, in Russia and in Germany was expressing a sense of the terrible danger confronting Europe. It was again a case (as with the tell-tale premonitions of the Balkan War) when those who supply European news to the American press found it easiest to ignore the whole matter, as simply another of those far-off, tedious quarrels in southern Europe in which the public of the United States took no interest. Near by, however, the alarm was instant and acute. To go back to the *Frankfurter Zeitung's* article of July 27, it began by saying that the Austrian demand on Servia would be a severe test of "the existing system of European politics." It immediately perceived that the Triple Alliance (Germany, Austria, Italy) would be strained in its last fibre. It was in no doubt that the Dual Alliance (Russia, France) would at once vibrate in response, and that, the Triple Entente (Russia, France, England) also beginning to function, the nerves of all Europe would be racked. Then would come the answer to the question whether these alliances were really a splendid "instrument of peace." As such they have long and loudly been boasted, but the intelligent Liberal newspaper of Frankfort proceeded to say: "We have not shared that belief, but on the contrary have firmly maintained that European peace did not depend upon an equipoise of Powers in groups, but upon the broad basis of a justly ordered union of the peoples." Then it added that the proof as to who was right would soon be forthcoming. If the Triple Alliance prevented war, it would be truly "rich in blessings to European politics," but if not, it would be seen to be "a chain binding the peace of Europe to the will of persons and cliques in whom the citizens of states governed in the spirit of liberty could place small trust."

The event demonstrated that the fear was better grounded than the hope. Directly to alliances that were long held up as the surest safeguards of peace, is traceable the most stu-

pendous and, in nigh probability, the most devastating war Europe has ever known. Almost as the guns began to go off, the President of France and the Czar of Russia were toasting in St. Petersburg the Dual Alliance which, in their phrase, made peace a certainty. Hardly had the words "la paix assuré" died on their lips when declarations of war were thundering all round the horizon. The famous "Go, my son, and see with how little wisdom the world is governed," gains new point from the melancholy crumbling into ruin of the fabric which the best statesmanship of Europe has been for thirty years erecting.

To understand the system of alliances we must know something of the system which preceded it and which it displaced. This was the old doctrine of a European equilibrium. It was commonly known as the Balance of Power. This has never been described more picturesquely, and at the same time philosophically, than by Kinglake:

> Any prince who might be inclined to do a wrong to another State casts his eyes abroad to see the condition of the great Powers. If he observes that they are all in a sound state and headed by firm, able rulers who are equal, if need be, to the duty of taking up arms, he knows that his contemplated outrage would produce a war of which he cannot foresee the scope or limit, and, unless he be a madman or a desperado desiring war for war's sake, he will be inclined to hold back. On the other hand, if he sees that any great nation which ought to be foremost to resist him is in a state of exceptional weakness or under the governance of unworthy or incapable rulers, or is distracted by some whim or sentiment interfering with her accustomed policy, then perhaps he allows himself to entertain a hope that she may not have the spirit or the wisdom to perform her duty. That is the hope, and it may be said in these days it is the one only hope which would drive a sane prince to become the disturber of Europe.

This was the general theory of alliances — fluid and changing as will be seen — which obtained in Europe for fifty years after the Napoleonic wars. It was brought to an end by Bismarck. In place of it he set up the idea of rigid and hard-and-fast alliances. Himself the creator of the Triple Alliance and — by reflex action — of the Dual Alliance, it is the workings of his mind that we must study if we would comprehend the "system" of modern Europe that emerged from it. A wonderful brain it was, that one of Bismarck's, and for years it was busy combining and shifting and re-combining the Powers, as a chessmaster works over the possible moves. To a statesman who could occupy his sleepless hours by selecting a new Cabinet for Portugal, the game, or task, of so arranging and allying the countries of Europe as, in the first place, to further German policy, and next, to keep the peace as long as possible, must have been fascinating. He did not leave the world in ignorance of his viewpoints or his methods. No more repaying chapters will one find in his "Gedanken and Errinerungen" than those in which he unfolds his theories of European alliances. What he writes has to be carefully checked at certain points, but as we read we feel that we are being let into the first plans of the architect who built the edifice that, until the other day, stood before us in its proud and fair proportions.

It all dates back to the battle of Königgrätz in 1866. By this is meant that immediately after that crushing military overthrow of Austria, Bismarck, whose spirit, more truly than Metternich's, ever "wrestled with to-morrow," perceived that Germany might soon need an alliance with Austria, if not her friendship. Thereupon he proceeded to enforce an amazing policy of moderation upon the reluctant King William and the impatient forwards of the Prussian army. He vetoed a march into Vienna. In preparing for the treaty of peace at Nikolsburg, he insisted that no territory should be demanded from Austria. Why take land that would have to be occupied by Prussian soldiers when every available man would soon be needed for the greater struggle with France? It required all of Bismarck's force and authority to carry through a settlement of this tenor. Only by the aid of the Crown Prince was he able to break down the strong opposition of the King. But he succeeded; and his foresight was completely justified later. Having in his pocket the secret treaties of offensive and defensive alliance with Bavaria, Württemberg and Baden, and with Austria's benevolent neutrality assured, he was free to go on spinning his diplomatic and military net about Napoleon III.

This germ of an alliance with Austria, Bismarck set himself to cultivate and expand after the defeat of France and the consolidation of the German Empire. He had no fancy for temporary coalitions. They gave him nightmares, he said. What he desired was an enduring combination of great Powers. The Triple Alliance, as he originally conceived it, consisted of an alliance of the three Emperors. Later he hoped to bring in Italy. He had cherished the plan even before the end of the French war, and immediately after the peace of Frankfort set about accomplishing it. Europe soon saw it in apparent effect. The *Dreikaiserbund* — Austria, Russia, Germany — functioned successfully for three or four years. It was broken up in 1875, by, as Bismarck maintained, the provocations and lies of Gortchakoff. Whether in that year Bismarck really intended to make another war upon France, is still disputed. It is certain that Moltke urged him to do it. It is also certain that England and Russia were seriously alarmed, and that at this time began the Russian inclination to France, out of which soon grew the Dual Alliance. This compelled Bismarck to alter his scheme, to abandon his hope of a firm understanding with Russia, which he protested to the end that he always would have preferred, since he believed that Russia was the natural ally of Germany, and at the same time the strongest one she could have, and

to fall back on the only powerful alliance then open to him — that with Austria and Italy. In this way was born the Triple Alliance which has lasted for more than thirty years since Bismarck formed it, and which was the immediate cause, through its obligations and binding military agreements, of the present war in Europe.

Italy's motive for joining the Triple Alliance has always seemed a little obscure. How could Bismarck persuade her to clasp hands with her hereditary enemy, Austria? It has been said that he did it by playing upon her vanity. Italy was flattered by being invited into the circle of the great Powers. But there was another and a real inducement, which Bismarck knew how to lay before Italy in attractive form. She was jealous of French expansion in North Africa. Against that she could fortify herself by entering the Triple Alliance. And when the time came for her descent upon Tripoli, she would have, as she did have two years ago, a free hand. This must have been the chief consideration in the mind of those Italian statesmen who have for a generation held Italy true to what seems for her an unnatural and awkward alliance. Now that she has achieved the main end she aimed at, it is not strange that she has been showing signs of coldness to an alliance that could hereafter mean for her only small benefit and great burdens.

Bismarck was perfectly frank in stating the object he pursued in forming and maintaining the Triple Alliance. His reasons were partly dynastic. The houses of Hohenzollern and Hapsburg he would firmly establish beyond the shock of republican or socialistic agitation. The Romanoffs he would have gladly included, had not Russia drawn apart. He feared that there would be a great struggle between the two European tendencies which Napoleon called the Republican and the Cossack. Bismarck was for the system of order on the monarchical basis, and it was to stiffen and strengthen it that he created the Triple Alliance. But he had also a military purpose — a defensive purpose, as he contended. He desired to add to the fighting power of Germany the armies of Austria and Italy, in such a way that the Empire could be free from danger of attack, and might enter securely upon that work of national development and increasing influence in the councils of Europe which he thought of as belonging by right to the greater Germany which he had builded. And it is certainly a high tribute to his prescient and puissant statecraft that this creation of his genius should have endured, with scarce a change in form, till this day. The Triple Alliance has been regularly renewed, at each period of expiration, as if it were one of the fixed institutions of European politics.

It is not to be supposed that the Triple Alliance was an alliance in everything. Each country in it was free to act as it chose in those matters which lay outside the agreed scope of common action. The result is that there has often appeared to be, in questions not exclusively European, a regrouping of the Powers as if in utter disregard of the Triple Alliance. One such case arose at the close of the war between Japan and China. In opposition to England, Russia and France were closely drawn together with Germany in protesting against the proposed cession of territory to the Japanese. This they did indeed prevent. At that period both Russian and French diplomacy was strongly anti-English; and an observer at that time knowing nothing of what had gone before, would have concluded that the real Triple Alliance, if one existed at all, was between France, Russia, and Germany! So like a dissolving view does the whole system of European friendships and alignments often appear.

No student of European politics could, for example, have predicted anywhere between 1899 and 1903 that Europe would in a few years see, over against the Triple Alliance, and supplementary to the Dual Alliance, a Triple Entente uniting France, Russia, and England and bidding fair, as it does at this moment, to refashion the whole political system of Europe. This was, given the past history and diverse interests of the countries composing it, an even stranger mating of opposites than the alliance which bound Italy and Austria up in the same bundle. That England could act in hearty unison with France seemed only less unlikely than that she could so act with Russia. But she actually joined both in the Triple Entente! Its nature has all along been indefinite; its scope has not been known accurately by the other European Powers; it has been, as it were, the mystery of diplomacy. There was no absolute treaty underlying it. This was made certain by the statement within a year of the British Prime Minister, in answer to a question put to him in the House of Commons, that England had not bound herself by treaty to act jointly with France and Russia. This left the matter still very much in the dark. The first clear light was given by Sir Edward Grey just before the war broke out. He explained that, while no specific and binding agreement had been made with France, an exchange of notes had taken place between the two Governments. The purport of them was that if either country were attacked by a third, the two would consult together for common defense. Sir Edward had nothing to say to the Commons about Russia. But in the official publication of diplomatic correspondence which he authorized shortly afterward, was a telegram from the Czar to King George urging him "to stand by" Russia and France. This would imply that all three were placed very much on the same basis by the Triple Entente. Not a formal pact, it was of the nature of "a gentleman's agreement." All depended upon the good will and good faith in which it was lived up to. In the result, it appears to have been as effective as an actual alliance cemented by treaty; having most of the advantages of the latter without some of the embarrassments.

How the Anglo-Russian *entente cordiale* was brought about, is not definitely and fully known. But the work of perfecting a good understanding between England and France was done under the eyes of the whole world. Sir Thomas Barclay, in his recent volume of "Anglo-French Reminiscences," has detailed most of the steps. Great difficulties had to be overcome. There was inherited suspicion along with historical causes of bitterness, on both sides. Moreover, there has been recent instances of severe friction. The position and the interests of France and England in Egypt furnished material for sharp controversies and almost open quarrels during a period of years. The French annexation of Madagascar was a thorn in the side of Great Britain. In 1898, Major Marchand at Fashoda brought the two countries to the very verge of war. And as long as Lord Salisbury, who neither liked nor trusted the French, was in charge of the conduct of British foreign relations, nothing was possible except the continuation of a policy of pin-pricking on both shores of the Channel. A better spirit showed itself when Mr. Balfour became Prime Minister; and little by little, by the aid of commercial organizations, by the tactful offices of King Edward, and by means of a more intelligent diplomacy in Paris as well as in London, the two countries entered upon cordial and even close relations. The great outward and visible sign of this significant change was the Anglo-French Arbitration treaty of 1904. Indeed, in this was the formal decision of France finally to give England an entirely free hand in Egypt, as well as England's consent that Morocco should thereafter be ear-marked for France; and any other question that might arise to disturb the good feeling between the two countries, they agreed to refer to arbitration. After this, the pressing on to the fuller and more fruitful Entente, into which Russia was soon drawn, was natural and easy. Thus against Bismarck's Three came to stand a Three which he and all the statesmen of his day would have asserted that it would be absolutely impossible to bring together. But the political impossibility of one generation is often the established fact of another.

Though the Triple Alliance was in effect for a generation, it was until very recently of the nature of a dormant force. Not what it did, but what it might do, was long the chief concern of the other European powers. It was plainly a high potential. Yet the purely ornamental or, at least, exterior functions of the Triple Alliance were for many years the only public proof that it gave of its existence. There was the annual exchange of royal visits between Vienna and Berlin and Rome; there were the military reviews, the naval displays, the banquets, the toasts, the embracings. Similarly, the Dual Alliance seemed content to take it out in flourishes about the undying friendship between Russia and France. But a sharp warning was given six years ago. An overt act showed that the latent possibility in the Triple Alliance might any day become a threatening reality. In 1908, the Austrian Government suddenly announced the annexation to Austria of Bosnia and Herzegovina. These two provinces had by the Treaty of Berlin been placed under an Austrian protectorate; but their cool taking over as part and parcel of a Dual Monarchy, was a direct challenge to European diplomacy. Russia was deeply moved. Every Slavic fibre in her heart thrilled with remonstrance against this subjection to Austria-Hungary of Slav populations. England was the first to protest. Sir Edward Grey urged that no step in disregard, if not violation, of a public treaty of Europe could be warranted except by a congress of the Powers, of which he proposed the early summoning. But Germany, of course, aware in advance of the Austrian plans, objected; and when Russia thereupon began to hint at using force against Austria, the action of the Kaiser was swift and menacing. He threatened an instant mobilization on the Russian frontier; and the Czar's military advisers warned him that the Russian army was in no condition to resent this: On the 24th of last July, however, the Minister of War informed the Grand Council at St. Petersburg that 1914 was very different from 1909, and that Russia was now in position to ignore or defy the military threats of Germany. This shows how the affront, as Russia considered it, of the annexation of Bosnia and Herzegovina had rankled in the Czar's mind these six years, and how he was determined not to be caught again by an anticipatory German mobilization. The Bosnian incident may also have had its effect on the year's crisis in another way. It may have made Berlin over-confident. Having frightened Russia from interfering with Austria's forward policy once, why not think to do it successfully twice? However this may have been, there can be no doubt that the events of 1908–9 were the sure prelude to the war of 1914.

In whatever way that war may end, one result of it is certain to come. The Triple Alliance will expire. This would happen even if German and Austrian arms should triumph. In that case Italy would come in for something very different from an invitation to renew the Triple Alliance. Victory by England, France and Russia would clearly make such a renewal impossible. Indeed the whole system of European alliances will be radically altered by the war. Perhaps in time we may see it displaced by some form of that *Völkerverein* of which the *Frankfurter Zeitung* spoke. At all events, the Triple Alliance, which was said to have kept the peace of Europe for thirty years, and which has now plunged it into the most terrible of all wars, will soon be as dead as the Holy Alliance of our grandfathers.

A WAR CORRESPONDENT'S IMPRESSIONS OF THE FIGHTING ARMIES

BY

JAMES F. J. ARCHIBALD

[Mr. Archibald has seen service in fifteen campaigns, has been with twenty-six armies in the field, and has seen sixteen armies in actual international war.— The Editors.]

FROM a purely military standpoint the European crisis of to-day presents a situation that staggers the mind of any one conversant with the technical side of warfare. Bullets and bayonets are the spectacular sources toward which the public invariably turn for their news sensations, but as a matter of fact they are of the smallest importance in the military scheme. First of all comes the problem of the commissariat and then that of transportation.

It was Russia's line of communication that defeated her in Manchuria, not the Japanese. Her distance from her base of supplies and her general unpreparedness brought defeat to her arms, but to-day a different situation arises. The combatants who have cast their lot for war border, geographically, so closely upon one another that the problem of transportation does not enter largely into the present campaign; the theatre of war is comparatively so small that there remains but one serious problem, the commissariat, and that has been fully anticipated by Austria and Germany. It remains to be seen whether Russia and France have food supplies sufficient to maintain their forces for the next eight or ten months, while their sea communications are in jeopardy or possibly interrupted.

During the last few years I have spent many months in the field with these various armies. The Russians impressed me as a magnificent fighting force. They are heavy and slow in movement, but their rank and file knows no thought but that of obedience. I saw the Boers lose fight after fight, and position after position, because the rank and file "thought it out" for themselves and disregarded orders, but the Russian soldier will go unthinkingly into any position where his officers lead him. I have seen entire regiments of Russians wiped out to a man by the enemy's artillery fire apparently without an idea of retreat. They were ordered to hold their position and they held it, even with their bodies, in death. Such sacrifice is necessary in warfare, and it enables commanders to play their grim game in their own way.

The Servians will be no easy task for Austria, but the result as between the two countries is inevitable, for Austria must conquer with her superior force, her superior equipment, and her splendid training. A comparatively small force can simply hold them in check, while Austria's main army joins Germany on the north to repel Russia, and later when less occupied, if victorious, the Germans and Austrians can push against Servia.

Roumania will be an important element, and, if it is possible for her to remain neutral, she will gain much in this struggle. Less than four months ago I had a long talk with Crown Prince Ferdinand of Roumania, and, in anticipation of some such trouble, he said that he had advised his uncle, King Carol, to remain neutral at any cost. However, the engagement of Prince Ferdinand's oldest son to a daughter of the Czar of Russia may have its bearing on the situation. If Roumania remains neutral it prevents Russia from going to Servia's aid except by frontal attack through Austria and Hungary. If Bulgaria enters the fight with Servia the Russian troops could be landed on the Black Sea and put into action in two days by rail communication.

My recent tour of the Balkans convinced me that it will be a most difficult task to bring any enthusiasm among the lower classes in either of these countries except Roumania, where the peasants are of a higher class. Roumania is strictly for peace, but I have never seen a more magnificent force of men than constitute her army. Her aeronautic corps is highly advanced and her artillery equal in efficiency to that of the French. The whole country is more like France, and French influence is more in evidence than that of any other country in Europe. In Bulgaria and Servia the lower classes have had their fill of the horrors of war, and, although they will be compelled to fight, their movements will lack much of the zest and patriotic enthusiasm shown at the time they fought the demoralized Turks.

It is different in Austria. I recently spent several months in Germany, Austria, and Hungary, and found a war spirit pervading the entire country. The Austrian soldiers form an ideal military force. They are as strong and hardy as the Germans, but have all the active mobility of the French. The Hungarians are of the same type and are, if that were possible, even more patriotic and more greatly imbued with the war spirit. An incident which

came to my notice recently serves to show that spirit. I was visiting for a couple of weeks in Belgrade, and was invited by the Austrian Minister, Count Forgach, to attend a review of several thousand troops at Semlin, just across the river in Hungary. While riding back to the barracks after the review, the commanding officer of the regiment of Hungarian Hussars with whom I rode called up man after man from the ranks to speak to me. Every one of them were American citizens, eight of them belonged to the Pennsylvania National Guard, and each of them had returned to Hungary for his military service as a matter of pleasure, not duty. The war spirit is very strong. I doubt if there is any other country interested in this war where the patriotism will be as keenly shown, with the possible exception of France. There, of course, the same feeling is universal.

Austria and Servia have precipitated this titanic struggle, but underlying that local situation which came to a head following the investigation of the assasination of Archduke Ferdinand and his wife in Sarajevo, there is the great problem of an economic war between the Slav and the Teuton for supremacy in the Balkans. Russia has not been supporting Servia for the last years for Servia's good; she has not poured arms and ammunition and instructing officers into Servia for Servia's good; neither has she made presents of batteries of artillery to the Bulgarian Czar for the good of Bulgaria. Russia has been preparing for this struggle ever since she was checked by Japan in the Far East. Austria has known this, Germany has known it — in fact, every one seems to have known it, except the Servians and the Bulgarians. They apparently wish to believe that Russia is helping them for their own sake as a pure matter of philanthropic aid. Russia has entered upon the struggle to determine what nation will dominate the future of Europe.

Turkey must be seriously considered in this conflict. Her arms might easily be the balance of power. There is no better fighting force in the world to-day than the Turks. I saw a hundred thousand Turks mobilized in Albania during the revolution before the Balkan War, with as little trouble as we would move a brigade — magnificent fatalists, armed and equipped in the most modern manner. These men went down to defeat before an inferior people and an inferior force, beaten, not by the arms of the enemy, but by politics at home. A few weeks ago I saw these same Turks in Constantinople. They again had their old spirit — their equipment was even better, and the useless domains of their empire, which has been a drain on them, had been cut off. A new party is in power, and the Turkey of to-day must be reckoned with in this struggle, both in arms and in diplomacy. There is no better infantry in the world than the Turkish infantry; their abstemious habits, their national temperance, which is a part of their faith, puts them among the best foot soldiers of the world.

France seems to be prepared to the minute, and her patriotism can never be doubted; but her great error was in allowing Germany to strike first. France should have had her mobilization well under way, and not allowed herself to be caught unprepared.

It would be difficult to find two armies more unlike in every detail than those of France and Germany. The German force is a force of great strength, of solid frontal attack, of slow-moving bodies of great power and heavy discipline. In France the discipline is different. I would never call it lax; it is friendly. The officers and men are in closer relations than in Germany, but their efficiency is surely just as great. The French army is far more mobile, their artillery is the best in the world, and if it be properly served it should be the mainstay of the Republic's fighting force. I have never seen the French force in action except in a small way in Morocco, but even there their adaptability was proven, and they showed their true worth in this small African campaign.

The French native force of Northern Africa is bound to be a great element in the present struggle against Germany, and no time will be lost in throwing them in the field in France. They are a hardy, fast, fight-loving mass, and will glory in doing their share in a European war.

No great war has been fought since the development of the aeroplane, and all military authorities look forward with much interest to the ultimate result of the world's first experiments in this branch.

Each country engaged has spent much money and much thought upon this most important arm, and some vital effects are bound to be the result. The primary effect will be that the present state of aviation will tend toward shortening the war. Many days and weeks of waiting for reports from scouts and scouting expeditions will be obviated; great masses of troops and important movements will be easily detected by this modern method. Thousands of lives were formerly sacrificed in the necessary endeavor to deploy and discover the enemy. I sat on the top of a hill in Manchuria with the staff of Lieutenant-General Baron Sassulich, and saw him send three regiments forward to certain death, simply to discover the enemy. It took them half of a broiling hot day, and very few of them returned after they had accomplished their task. To-day one man can accomplish that work in an hour.

France is undoubtedly better prepared for this branch of the service than any other of the countries at war. Each privately owned aeroplane will be placed at the service of the Government, and the factories in France will be able to keep the supply equal to the military demand. For France it will be most important, for it will allow them to keep in constant communication with their allies even should all telegraphic and sea intercourse be interrupted. It will even permit the importation of minor supplies and ammunition into a besieged city.

As Germany has devoted much consideration to the great dirigibles, she is ready to take the offensive in this aerial warfare, and as the radius of activity of these monster airships is very great their menace will be serious indeed. Even England will not be free from vital attack.

Austria will surprise the world in her preparedness in aviation. As a member of the Austrian Aero Club I have followed the progress of her development for the last five years, and it has been most active. Under Baron Constantine Economo, a cousin of Ambassador Constantine Dumba, the private air-fleet of Austria and Hungary has grown to enormous proportions. Baron Economo is the president of the Aero Club of Vienna and has been working in conjunction with the governmental officials to develop a corps to be placed at the command of the Emperor in a time such as this. Their value in allowing a small force to occupy the attention of the Servians will be very great as they will prevent any troop movement of strength surprising any portion of the Austrian line. In this connection a motor corps has been recently organized in Austria which now numbers many hundreds, and their value in the rapid transportation of troops and supplies is most obvious. It includes every sort of motor-driven vehicle, automobile, motor cycles and motor trucks. In a country where compulsory service is in force all motors and their drivers could be commandeered in any event, but their organization in time of peace forms a splendid foundation for a war-time movement in transportation.

Russia's aeronautic corps has not been as highly developed as that of the other countries, but she has several hundred aeroplanes and their service is sure to be of vital importance owing to the fact that she must oppose two nations on the frontier.

Servia has ten of the most modern air craft, but she has not developed their efficiency to a degree where they will be of material benefit during the present struggle. She had these same craft during her recent war and did not make any effective use of them whatsoever.

The great problem of the war in Europe will be food. England has only a few months' food supply on hand at any time. She is entirely dependent upon Canada, America, Argentina, and Australia, and should the control of the sea be in doubt for a moment her ships could not transport the supply. France, Germany, and Austria will also experience much difficulty in providing their food supplies. Russia will be in a better position as she will be able to subsist her armies from her eastern provinces which are not affected by the war or even to supply herself over the Trans-Siberian railroad.

THE TROOPS THAT HAVE SEEN SERVICE

IT IS a curious fact that almost all the troops in this war that have seen actual service before are in the armies of the anti-German allies. At Mukden, in 1905, Russia had as large a single army as ever entered battle in the history of the world. In that one battle Russia had 310,000 men. The soldiers in its armies in the East received a thorough seasoning. The large proportion of these veterans is available for the Russian Army now. They have proved themselves to be excellent soldiers. The reports of the United States army observers in Manchuria bear witness to the stubborn courage of the Russian soldier under the most trying conditions. Even with the poor leadership (from which he suffered in Manchuria) he will stand tremendous losses without breaking. The Manchurian veterans will toughen the fibre of the Russian army. Whether the lessons of Manchuria quickened the intelligence and increased the skill of Russian leadership is still to be seen.

Russia's ally, France, has also a body of troops seasoned by actual warfare though not nearly so large a body. Within the last ten years France has had as many as 70,000 troops in Morocco at one time. Though the service in North Africa has not been against such adversaries as now confront the troops of the Republic, it has been a particularly arduous service in a difficult country. Under these conditions the French North African force has become one of the best known fighting forces in the world.

England's last active fighting on a large scale was in the Boer War twelve years ago, when it had a million men in the field. England should be able to draw on some of those men, and the officers in command of the British army now very largely got their actual experience in the South African campaign.

The best seasoned troops in the war are the Montenegrins and Servians, veterans of two bloody wars hardly a year gone by.

On the other side the German and Austrian armies are without actual war experience, except for the Southwest African campaigns of 1903-6 in which there were nearly 20,000 German troops at one time. Germany has not had a larger body of troops engaged than this since the Franco-Prussian War. Austria, except for such comparatively small operations as the war against the Begs in Bosnia in the late 'seventies, has had no active warfare since the war with Prussia in 1866.

THE ARMIES OF EUROPE

THEIR NUMBERS, CHARACTER, ARMS, AND THE PROBLEMS BEFORE THEM — THE FORTIFICATIONS AND THE STRATEGY OF THE WAR

BY

FREDERIC LOUIS HUIDEKOPER

[Mr. Huidekoper, who has followed the principal European armies, is a writer of acknowledged authority on the campaigns of Frederick the Great, Napoleon, and Von Moltke, as well as on military subjects of the day.—THE EDITORS]

THE war in which all Europe is embarked will undoubtedly be the most gigantic struggle in the history of the world — so gigantic that even the Napoleonic wars will seem like dwarfs in comparison.

To understand the present situation in Europe one must look at the arms and aims of each country in turn.

Ever since the reign of Ivan the Great (1462–1505), Russia has pursued one policy with extraordinary consistency, her effort being to improve herself by close contact with more civilized nations, and to obtain access to the sea, especially in warm waters. The wars which she has waged against Poland, Sweden, the Turks of the Khanate of the Crimea, Prussia, Napoleon, the Turks in 1877–1878, and Japan, her stealthy advance in Central Asia and her intrigues in the Far East, in Persia and the Balkans, are all part and parcel of this policy. She has constituted herself the protectress of the Slavonic people in the Balkans in return for which they may help her to secure Constantinople, the plum upon which she has looked with longing eyes for centuries.

It is an open secret that Russian expansion deliberately plans access to the North Sea over Scandinavia's prostrate nationalism, while at the same time it is reaching for a United Slavic Balkan peninsula, bordering south and eastward on the Adriatic, the Marmora, and the Black Sea, with complete control of their strategic sea-gates, the Bosphorus and the Dardanelles. Germany, geographically inside of Russia's enveloping ambitions, is even more resolved upon an expanding empire, which shall extend eventually from Dutch and Belgian ports on the North Sea, clear through what is now Turkey, along the line of the Bagdad railroad to the Persian Gulf.

Moreover, there is the possibility that if the Austrian Empire breaks up on the death of its present ruler — as has long been expected — the Kaiser or his descendants may become possessed of that territory and the important port of Trieste on the Adriatic. At the present moment, Russia's interests in that part of the continent clash with Austria's. Austria is keenly alive to its need to control the Adriatic, hence her occupation of Bosnia and Herzegovina in 1908, her resolution not to permit the Servians to have the port of Scutari, and her recent creation of the Kingdom of Albania. Her recent stand with respect to Servia is based upon her determination to permit no interference with her rights in that part of Europe.

Back of these Austrian ambitions is the Pan-Germanic idea — the German slogan of the famous March to the East — which is diametrically opposed, as already indicated, to a Russianized Balkans, or powerful Slav-Balkan state.

These facts afford a glimpse into the intrigues of these nations and the struggle between Russia, on the one hand, and Germany and Austria on the other, to obtain the upper hand in the Balkans politically, commercially, and by the effort of each one to introduce its system of military training — all which were discussed at such length in American newspapers during the late war, but without any attempt to throw light on the fundamental reasons from which they sprang.

The map of Europe shows Great Britain separated from the continent by a narrow strip of trouble water which has played a rôle in history only equalled by the Mediterranean. Her security is dependent mainly upon the ability of her fleets to prevent invasion. Her land forces are a secondary consideration. Her task is to defend the British Isles; to protect the carrying trade of the world which is in her hands; to keep open communication with her colonial possessions scattered all over the globe; and to prevent her food supply from abroad from being cut off lest she starve to death.

The main motive in France is revenge for 1870–71 and the reconquest of the lost provinces of Alsace and Lorraine.

European armament and European armies are at the same time the result of these conflicting ambitions, just briefly indicated, and the means by which each nation hopes to satisfy its own territorial hunger at the expense of the other nations.

For the benefit of the uninitiated in military matters, it may be said that almost every great nation has a regular army, and one, two, or three reserves. In time of peace the regular armies

are kept on a reduced, or "peace footing." When war is imminent, they are enlarged to their "war footing" by augmenting them to full strength, either by additional men drawn from the reserves or by recruiting, and by organizing, equipping, and supplying them for active operations in the field. This is known as mobilization. Army affairs are administered by a council presided over by the Minister of War, which includes certain high military officers charged with duties necessary to the proper management of land forces. One of these is the Chief of the General Staff who is nearly always the commander-in-chief in time of war. The General Staff prepares all plans of war, sees to the proper co-ordination of the various branches of the service, and superintends the execution of the plans determined upon. There are two kinds of troops: mobile, and fixed, i.e., stationed in fortifications. The mobile troops are of two sorts: those of the line, i.e., the fighting men, which include the infantry, cavalry, and artillery; and those of the staff. Broadly speaking, the infantry is organized as follows:

THE ORGANIZATION OF AN ARMY

INFANTRY

A squad is 8 men under the command of a corporal.

A section is 16 men under the command of a sergeant.

A platoon is from 50 to 75 men under a lieutenant.

A company is 3 platoons, 200 to 250 men, under a captain.

A battalion is 4 or more companies under a major.

A regiment is 3 or more battalions under a colonel, or a lieutenant-colonel.

A brigade is 2 or 3 regiments under a brigadier-general.

A division is 2 or more brigades under a major-general.

An army corps is 2 or more brigades, supplemented by cavalry, artillery, engineers, etc., under a major-general or lieutenant-general.

CAVALRY

A section is 8 men under a corporal.

A platoon is 36 to 50 men under a lieutenant, or junior captain.

A troop is 3 to 4 platoons, 125 to 150 men, under a captain.

A squadron is 3 troops under a senior captain, or a major.

A regiment is 4 to 6 squadrons under a colonel.

A brigade is 3 regiments under a brigadier-general.

A division is 2 or 3 brigades under a major-general.

ARTILLERY

A battery is 130 to 180 men, with 4 to 6 guns (8 in the Russian army) under a captain.

A group or battalion is 3 or 4 batteries under a major.

A regiment is 3 or 4 groups (battalions) under a colonel.

When regiments are combined into brigades, brigades into divisions, and divisions into army corps, cavalry, artillery, and certain other auxiliary troops, such as engineers, signal corps, aeroplane corps, etc., are joined with them in such proportions as has been found necessary. Every unit, from the company up, has its own supply and ammunition wagons, field hospitals, etc.

In Europe almost every man has done compulsory service with the colors, varying from one to four years, and aside from the usual drills and instruction, has received training in manœuvres, great or small, where the endeavor is made to reproduce the exact conditions which will occur in war. At times, however, even the "grands manœuvres" degenerate into what smacks strongly of opera bouffe, despite every effort to the contrary. The writer vividly recollects a charge of five regiments of French cavalry across nearly 800 yards of absolutely open country against a battery, a battalion of infantry, and a regiment of dismounted dragoons in September last, and the unconcealed disgust of one old soldier who had fought in the battles around Metz in 1870 at what he characterized as "crass idiocy." Even more spectacular was the charge of eighty squadrons of Bavarian cavalry, numbering more than 9,000 men, across about 1,000 yards of open ground against a strong position held by a brigade of Saxon infantry and several batteries, led by the German Emperor in person some years ago. The umpires decided that it was successful, whereat the military attachés smiled and remarked, as did Marshal MacMahon of the charge of the Light Brigade at Balaclava, "*C'est magnifique, mais ce n'est pas la guerre!*" (It is magnificent, but it is not war!) Upon another occasion the Kaiser indulged in a similarly preposterous charge, but upon galloping up to the umpires and inquiring, "How's that?" was greeted with the firm but diplomatic answer, "All dead but one, Your Majesty." It must not be supposed that such license is always the case, for the training is often severe, and in the various schools of musketry the utmost attention is paid to good marksmanship — no nation being more thorough in all that relates to military matters than Germany.

To understand the efficiency of European soldiers and the never-ceasing preparation for war, let us examine the systems of the leading continental powers, beginning with the one which has the greatest reputation.

GERMANY

The German army on a peace footing consists of 31,459 officers and 768,540 men, military service being compulsory and universal with certain exemptions. Liability to service (Wehrpflicht) begins at the age of 17 and ends at 45; actual service (Heerpflicht) commences at 20. With the active army the term of service is seven years, two in the ranks and five in the reserve for the infantry, five in the ranks and four in the reserve for the cavalry and horse artillery. The soldier is permanently attached to some corps, and during his reserve service is

twice summoned for training with it for a period limited by law to eight weeks, but in actual practice rarely six weeks and more usually a month. From the active reserve the soldier passes into the Landwehr or second line army, composed of two "bans," the first of 5 years for the infantry and 3 for the cavalry and horse artillery; the second "ban" of 6 to 7 years, or 8 and 9, for the cavalry and horse artillery. During the first ban there are two periods of training of 8 to 14 days each, in the second none, while the Landwehr cavalry is exempted altogether. The final reserve is the Landsturm — a force purely for home defence — in which the men remain until they have reached the age of 45; in other words, about 6 years. The Landsturm is composed of two "bans," the first comprising all men between 17 and 39 who for any reason have received no military training; the second includes all men, trained or untrained, between the ages of 39 and 45. The German army admits as volunteers for one year only well-educated young men who pay their own expenses and who serve to supply all the Reserve and Landwehr officers. There are also a considerable number of reserve troops intermediate between the active army and the Landwehr, and a supplementary (Ersatz) reserve of young men of 20 who are fit for service but in excess of the required number of annual recruits. They are liable for three periods of training, one of 10 weeks, one of 6, and one of 4, stress being laid on non-combatant duties, although they are also available for depot duty. The object of these various reserves is to keep the active regiments up to full strength and to replace the enormous wastage in men that invariably occurs in war.

In the organization of the German army six battalions form an infantry regiment, two regiments a brigade, two brigades a division, and two divisions an army corps. There are 10 divisions composed of 3 brigades each, and in the event of war it is probable that the other divisions will be similarly augmented. Adding the necessary auxiliary troops, viz: an artillery brigade of 12 batteries composed of 6 guns each — or 4 in the case of the horse batteries — a regiment of cavalry of 4 squadrons, an engineer battalion, sanitary troops, etc., a German 3-brigade division at war strength would number about 21,000, and an army corps — to which are further attached 4 batteries of howitzers and a battalion of rifles — about 43,000 combatants. The cavalry division is composed of 3 brigades of 2 regiments each and 2 or 3 batteries of horse artillery, a total of 24 squadrons and 8 to 12 guns. Twenty-five corps constitute the German army, whose war strength is (1) active army, 1,700,000; (2) Landwehr, 1,300,000; and (3) Landsturm, 1,000,000, a grand total of 4,000,000 men.

The infantry is armed with the Mauser magazine rifle, 1898 model, with a calibre of .311 inches and fires a "spit ball," i.e., one pointed like a pencil. The Mauser has a velocity of 2,700 foot seconds, a point-blank range of about 300 yards, and has adjustable sights for ranges up to 2,000 yards. The cavalry is armed with a Mauser magazine carbine, and all carry lances. The artillery, both field and horse, use a Krupp piece of 1906 model, firing a 15 lb. shell. The field howitzer is a 30-pounder, the heavy howitzer a 94-pounder. The Army Law of 1913 provided for 5 aeroplane battalions numbering 17 companies with about 400 aeroplanes, and that year there were 24 dirigible balloons in the military establishment.

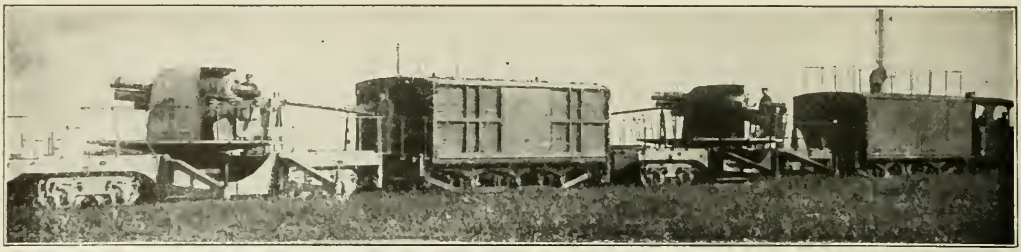
The German General Staff has the reputation of being the most thorough body of its kind in the world. The writer has been told upon excellent authority that Field Marshal von Molke used to declare that with the declaration of war in 1870 came his rest. The story is characteristic of the preparedness of the German General Staff, but if the plans to which the Germans are so wedded are upset the result may be different from their calculations. As indicative of the rule-of-thumb from which no digression is permitted, every observer of German manœuvres has been struck by the obligation of troops to take the exact position assigned to them quite regardless of whether circumstances have altered conditions and whether the spot is surrounded by enemies. In war such blind adherence to orders might entail annihilation. Moreover, the training instils into the men a dependence upon others, especially the officers and non-commissioned officers, which tends to rob them of all initiative; and the most casual observer cannot fail to remark upon the difficulty of the leaders to make their men take and keep open order in skirmishes and attacks, quite in contrast to the French, English, and Americans. The loss of life must necessarily be out of all proportion to the results achieved, as was the case when the Prussian Guard attacked the village of St. Privat on August 18, 1870, and suffered a loss of 30 per cent. in twenty minutes.

The German artillery is distinctly inferior to the French as a weapon, and the Mauser rifle has not such a flat trajectory (i.e. the bullet does not carry so far in a straight line) as the French small-arm at distances above 900 yards. The administration of an army that includes the commissariat, the quartermaster's department, the medical corps, etc., which supply the troops with food and all necessary stores, is only slightly inferior to the French; but its officials, whose functions are semi-military and semi-civil, have been subjected for years to the most overweening arrogance on the part of the officers of the line, and it would not be surprising to see revenge play its rôle, especially if the supply system breaks down under defeat.

Germany's railways are admirably situated for military operations in every part of the Empire. There is no lack of arms or ammunition so far as is known, and in the tower at

FRENCH BATTALIONS OF THE AIR

THE PRESENT WAR IS THE FIRST VITAL TEST OF AIRCRAFT. THE FRENCH, OF ALL THE NATIONS, HAVE THE LARGEST AND BEST EQUIPMENT OF AEROPLANES



A MODERN ARMORED TRAIN, USED BY THE FRENCH ARMY

Photographed by James F. J. Archibald

THE FRENCH CAVALRY AND FIELD ARTILLERY ARE PROBABLY THE BEST IN EUROPE

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FRENCH INFANTRY ON THE MARCH

NOTWITHSTANDING THEIR CLUMSY UNIFORMS AND HEAVY EQUIPMENT, FRENCH INFANTRYMEN ARE CREDITED WITH BEING ABLE TO MARCH FARTHER AND WITH LESS FATIGUE THAN OTHER EUROPEAN SOLDIERS

FIELD GUNS OF THE FRENCH ARTILLERY

OF THE TYPE THAT, IN THE HANDS OF THE BALKAN ALLIES, OUTSHOT THE GERMAN KRUPP GUNS IN THE HANDS OF THE TURKS

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FRENCH INFANTRY IN ACTION

THE DEPENDENCE OF THE FRENCH ARMY IS ON THE SPIRITED CHARACTER AND PERSONAL INITIATIVE OF THE INDIVIDUAL SOLDIERS, WHO SHOW EXCEPTIONAL RESOURCEFULNESS IN THE FIELD

AN ENGLISH FIELD BAGGAGE TRAIN

BRITISH CAVALRY

THE ENGLISH ARMY IS THE ONLY ARMY IN EUROPE MADE UP OF VOLUNTEER RECRUITS

BRITISH FIELD ARTILLERY

THE SOUTH AFRICAN WAR SHOWED THE BRITISH ARMY ITS WEAKNESSES IN COMMISSARIAT AND ITS LACK OF MOBILITY. IT IS BELIEVED THAT THE LESSON WAS NOT LOST

THE COLDSTREAM GUARDS IN SERVICE KIT

ONE OF THE FINEST ENGLISH REGIMENTS, ON THE MARCH IN SOUTH AFRICA

ENGLISH INFANTRY

THE BRITISH REGULAR ARMY CAN BE COUNTED ON, BUT THE EFFICIENCY OF THE TERRITORIALS, WHICH CORRESPOND TO AMERICAN MILITIA, IS PROBLEMATICAL. IN THE BOER WAR, GREAT BRITAIN PUT MORE THAN ONE MILLION MEN IN THE FIELD

GERMAN INFANTRY IN THE FIELD

EVERY DETAIL OF EQUIPMENT AND OF CARRIAGE, FROM THE MARTIAL LOOKING HELMET TO THE ARTIFICIAL "GOOSE STEP" GAIT USED ON PARADE, EMPHASIZES THE STUDIED UNIFORMITY AND PAINSTAKING PRECISION OF GERMAN MILITARY SCIENCE

"AN ARMY THAT RUNS LIKE CLOCKWORK"

THE GERMAN ARMY IS THE MOST THOROUGHLY DRILLED OF ALL ARMIES, AND ITS COMMANDERS PUT THEIR FAITH IN ITS MASS EFFICIENCY DIRECTED BY THE GENERAL STAFF ALONG MINUTELY AND CAREFULLY PLANNED LINES

ALL GERMAN CAVALRYMEN ARE ARMED WITH LANCES

AN AMERICAN MILITARY AUTHORITY HAS CRITICIZED THESE WEAPONS AS OBSOLETE, BUT ADMITS THAT THEY WILL BE EFFECTIVE IF MODERN WARFARE RENEWS FIGHTING AT CLOSE QUARTERS

NEWS GATHERERS FOR THE GENERAL STAFF

BICYCLE, MOUNTED, AND AEROPLANE SCOUTS BRING NEWS TO THE GERMAN STAFF, WHICH IS THE MOST THOROUGH ORGANIZATION OF ITS KIND IN THE WORLD

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GERMAN ARTILLERY IN ACTION

THE GERMANS HOPE IN THIS WAR TO DEMONSTRATE THAT THE KRUPP GUNS FAILED IN THE BALKANS ONLY BECAUSE THEY WERE NOT PROPERLY HANDLED

"A CARAVAN LOADED WITH DEATH"

GERMAN FIELD ARTILLERY MARCHING THROUGH A MOUNTAIN VILLAGE. A PART OF THE 4 MILLION MEN THAT THE KAISER CAN PUT IN THE FIELD

THE COSSACK CAVALRY OF THE CZAR

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RUSSIAN INFANTRY, ENCAMPED AND MARCHING

THE RUSSIAN SOLDIER DOES NOT THINK FOR HIMSELF AND THE MANCHURIAN CAMPAIGN SHOWED THAT HIS OFFICERS DO NOT DO ENOUGH THINKING FOR HIM. DESPITE THIS HE HAS SHOWN THAT HE WILL STAND A TREMENDOUS PERCENTAGE OF LOSS WITHOUT BREAKING

Photographed by James F. J. Archibald

"THE BEAR THAT WALKS LIKE A MAN"

A FAMOUS DESCRIPTION OF THE RUSSIAN SOLDIER, THAT SUGGESTS BOTH HIS MERITS AND HIS DEFECTS. OTHER PICTURES: RUSSIAN FIELD ARTILLERY

RUSSIAN SAPPERS THROWING UP ENTRENCHMENTS

Photographed by James F. J. Archibald

A RUSSIAN PORTABLE SOUP KITCHEN THAT SUPPLIES QUICK RATIONS IN THE FIELD

THE FAMOUS SIBERIAN RIFLE CORPS OF THE RUSSIAN ARMY

Photographed by James F. J. Archibald

A RUSSIAN ADVANCE

A FEW OF THE 5,692,000 MEN IN THE RUSSIAN ARMY

TYPES OF AUSTRIAN AND HUNGARIAN SOLDIERS

AUSTRIAN FIELD ARTILLERY AND AUSTRIAN CAVALRY

THE AUSTRIAN ARMY HAS NOT BEEN THOROUGHLY TESTED SINCE ITS DEFEAT BY PRUSSIA IN 1866; THEORETICALLY ITS EFFICIENCY IS HIGH

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Photographed by James F. J. Archibald

AUSTRIAN MOUNTAIN ARTILLERY

ITALIAN INFANTRY CROSSING A DANGEROUS PASS

THE NEW EQUIPMENT OF THE AUSTRIAN INFANTRY

SERVIA'S BATTLE-SEASONED VETERANS

UPPER PICTURE: THE BATTLEFIELD OF KUMANOVO. MIDDLE PICTURE: A SERVIAN FIELD HOSPITAL NEAR ADRIANOPLE. LOWER PICTURE: SERVIANS IN CAMP AFTER THE BATTLE OF MONASTIR, FOUGHT DURING THE BALKAN WAR

ENEMIES OF AUSTRIA — MONTENEGRIN TROOPS
ENTERING SCUTARI, OF WHICH AUSTRIA DEPRIVED THEM AFTER THE BALKAN WAR WAS OVER

SERVIAN GUNS ON THE MARCH — THE REALITY WITHOUT THE POMP OF WAR

Spandau, near Berlin, an enormous amount of gold has been stored for years as a war chest. German powder is of excellent quality and fully abundant. Supplies are ample for a campaign of months, but if Germany is cut off from the sea difficulty will be experienced in feeding her enormous armies. Her fortifications are of the latest and most approved type, heavily armed and provisioned for months, and, unlike France, she has wisely put her mortars in the first line, the howitzers, the short range guns, in second line, and the high power guns in the rear. Each fortification is provided with a wireless system for communication with other fortifications, thus rendering it possible for garrisons to unite either to harass the enemy temporarily or for prolonged operations — a performance heretofore so hazardous that it has been rarely attempted in the presence of the enemy.

FRANCE

The last few years have witnessed an almost incredible resurrection in the military spirit of the French. Less than two years ago, when Germany increased her standing army, France instantly retaliated by lengthening the term of active service from two to three years without creating so much as a ripple in her internal affairs. She is determined to recover her lost provinces of Alsace and Lorraine, and, if the opinion of military critics is not woefully at fault, she may be counted upon to put up a desperate fight against her German adversary.

The "National Army" of France is composed of the "Metropolitan Army" and the Colonial Army, the former numbering 753,403 and the latter about 116,000 — 46,000 being in Morocco and 39,000 in Algeria — a total of 869,403, exclusive of 25,000 in the Gendarmerie or military police. Military service is compulsory and universal from the ages of 20 to 48, the only exemptions being for physical disability. After 3 years in the active army, the soldier passes to the reserve for 11 years, followed by 7 years in the Territorial Army and 7 in the Territorial Reserve. In the active reserve, the conscript undergoes two periods of training and manœuvres lasting for 4 weeks each; in the Territorial Army one period of 2 weeks; in the Territorial Reserve, no fixed period. Unlike the Germans, the French have no one-year volunteers but every encouragement is given for voluntary enlistment for 3, 4, or 5 years, particularly in the Colonial Army. The length of the reserve service produces more than 2,000 reservists per battalion, so that in case of mobilization, the active units can easily be maintained at full war strength and each battalion and regiment forms an additional reserve unit with men left over for the depôt. As a necessary precaution, the troops stationed along the German frontier are kept at a considerably higher strength than the others.

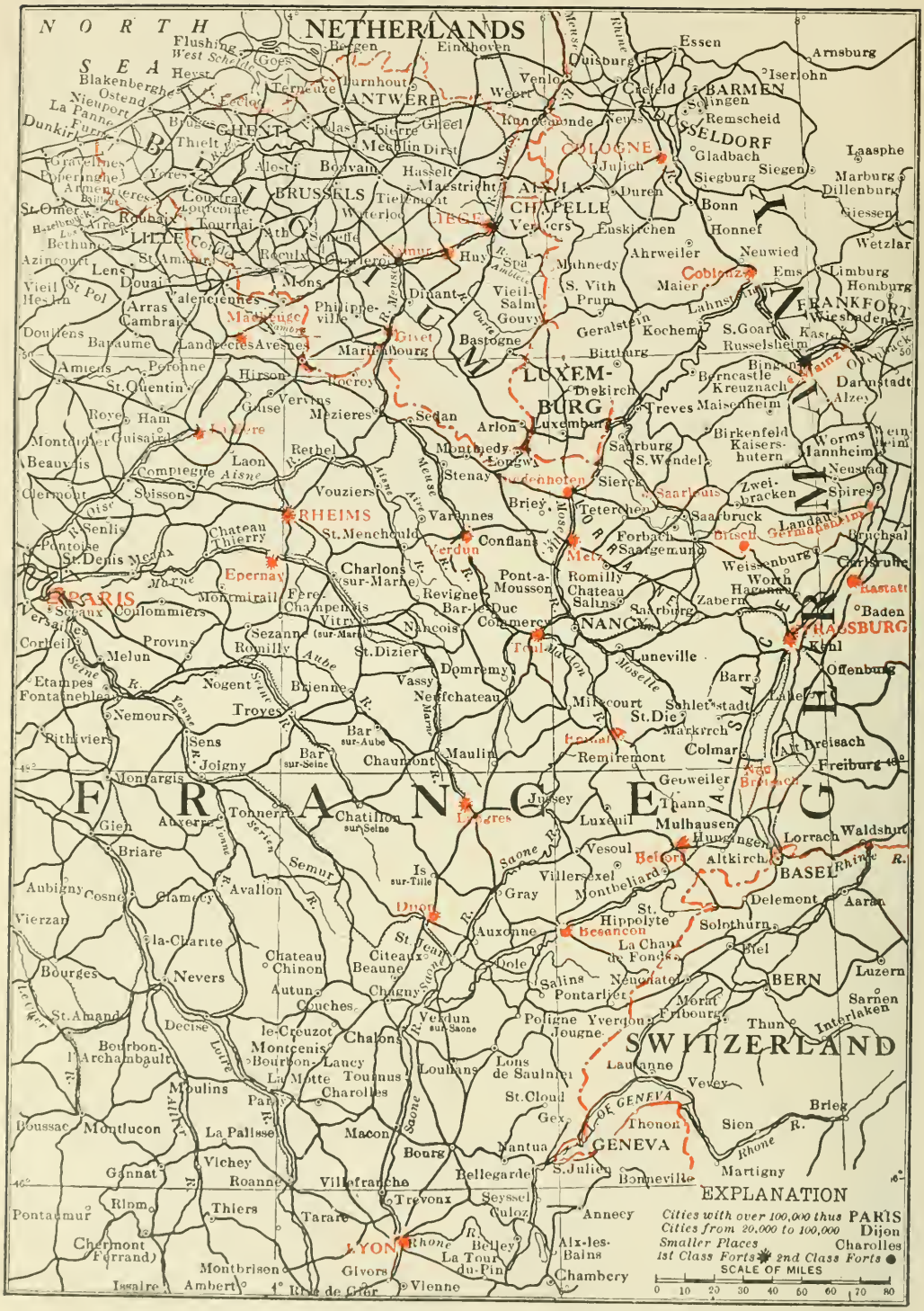
In the organization of the French army, two infantry regiments — composed of 6 or sometimes 7 or 8 battalions — form a brigade, 2 brigades a division, and 2 divisions an army corps. To every division is attached a field artillery regiment of 9 batteries of 4 guns each. The corps artillery includes 9 field and 3 howitzer batteries, to which 6 reinforcing batteries are added upon mobilization, so that each corps on a war footing has 144 guns. Furthermore an army corps in the field has attached to it a cavalry brigade of 2 regiments, 1 chasseur (cavalry) battalion, engineer companies, sanitary and service troops, etc. The cavalry divisions are composed of 3 brigades of 2 regiments each — together with 3 batteries of horse artillery. When mobilized the strength of an army corps is approximately 33,000 combatants, a cavalry division 4,700. There is also an aeronautical corps with 334 aeroplanes and 14 dirigibles.

The French army is localized and territorialized. Of the 21 army corps regions, all except Algeria (the 19th) furnishes a complete army corps. The 8 infantry regiments of an army corps are recruited from their respective regimental districts, but the additional regiment is obtained from the region at large. Like the chasseur battalions, these additional regiments are usually stationed near the eastern frontier, so that the 6th Army Corps at Châlons and the 7th at Besançon are augmented to 3 divisions each.

The Reserve Army has two divisions in each region, corresponding to those in the active army. Upon mobilization the 36 reserve divisions contain virtually the same organization and strength as the troops of the first line. The reserves of the regional regiments, engineers and foot artillery can be utilized for garrisoning the various fortresses to which allusion will be made later. The Territorial Army likewise consists of 36 divisions and garrison troops. Upon mobilization the remaining men of the Reserve and Territorial armies are summoned to the depôts and are available to maintain the field army at war strength. The Customs Corps, the Chasseurs Forestiers, the Gendarmerie (25,000) and the Garde Républicaine (2,992) have also had military training and can be utilized in time of war.

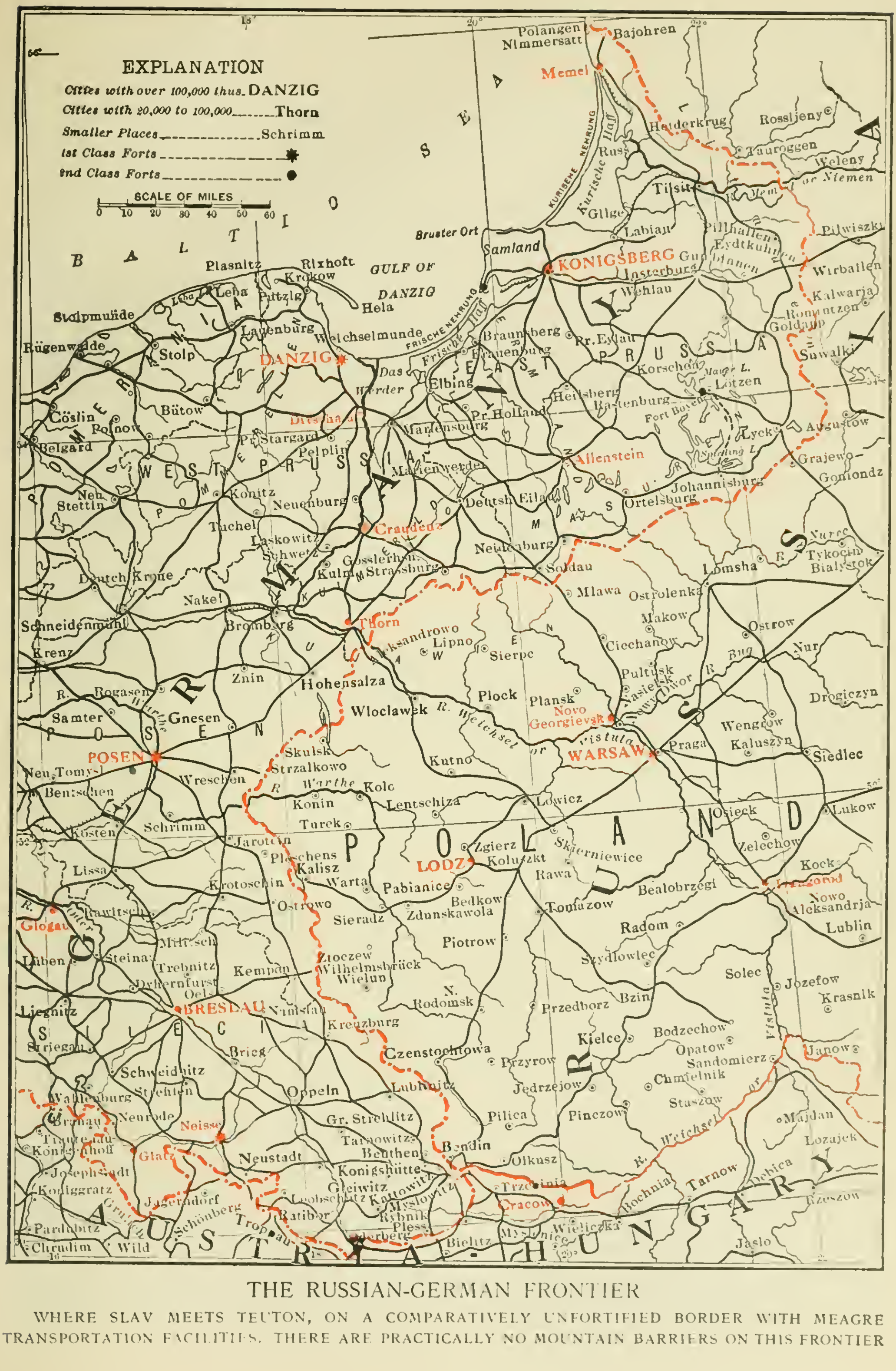
The French field army is composed of 20 army corps, the brigade of 14 battalions stationed at Lyons, and 10 divisions of cavalry. Raised to their full war strength, the active army numbers 1,000,000, the reserves and depôts, 1,600,000, the Territorial army 818,000, and the Territorial reserve 451,000, a grand total of 3,878,000. As a matter of fact, France possesses about 5,000,000 trained men, 1,000,000 more than Germany — a thing which not many people know.

The infantry is armed with the Lebel magazine rifle of .315 inches calibre, the cavalry with the Lebel carbine, both excellent weapons. The field piece is a rapid-fire gun of 7.5 centimetres (2.95 inches) of the model of 1907, provided



THE GERMAN-FRENCH FRONTIER

SHOWING THE FRENCH, GERMAN, AND BELGIAN FORTS. THE HEAVY BLACK LINES ARE RAILROADS AND THE SMALL TOOTHED LINES ARE CANALS



THE RUSSIAN-GERMAN FRONTIER

WHERE SLAV MEETS TEUTON, ON A COMPARATIVELY UNFORTIFIED BORDER WITH MEAGRE TRANSPORTATION FACILITIES. THERE ARE PRACTICALLY NO MOUNTAIN BARRIERS ON THIS FRONTIER

with a shield for protection. The howitzers are of 12 or 15.5 centimetres (1.cm.=.3937 inch).

For many years there existed much uncertainty as to who would command the French army in time of war owing to the fear of a dictator like Louis Napoleon or like General Boulanger attempted to be (February, 1889). In July, 1911, when the Moroccan trouble was at its height and war seemed imminent, it was decided that the power of appointing the commander-in-chief should be taken away from the Conseil Supérieur de la Guerre — which is charged with general military questions under the presidency of the Minister of War — and vested in the Conseil des Généraux, which is composed of the officers commanding the field armies and which has now selected General Joffré for supreme command.

The French artillery is generally admitted to be in a class by itself and the Intendance (commissariat, etc.) is excelled by none other. The infantry is most deceptive in appearance, but the ability of the French to march and attack has never been surpassed. On the other hand, its *forte* is not the defensive, and only last year the writer was struck by the need of firmer discipline and more instruction. The French are peculiar in this respect, but the instant the first shot is fired no soldier rallies quicker to his colors, or is more desperately in earnest than the Frenchman. The cavalry is first class and will give a good account of itself. Its work will be supplemented by the army aeroplane corps and a volunteer aeroplane corps, the latter of which can be counted upon to furnish about 1,000 aeroplanes, which will prove far more than a match for the German aircraft, and ought to keep the commanding generals fully informed of every movement of the enemy. The Minister of War recently stated that there was no provision for the defense of the fortifications against attacks from the air, and there is also some question as to the efficiency of the wireless apparatus installed in the fortresses. The French naval powder is notoriously uncertain and short-lived, but the same cannot be said of the army powder, and so far as is known abroad, there is no shortage in ammunition. The regimental officers are excellent but the French success will be largely measured by the ability of the generals. If they are able to take and keep the offensive, the French will prove a decidedly tough nut for any army in the world to crack.

RUSSIA

The peace strength of the Russian army is 1,284,000 men, its war strength 5,962,306. Military service is compulsory and universal, beginning at the age of 20 and terminating with the end of the 43d year. Service in the active army is for 3 years in the case of the infantry and artillery, for 4 years in the other arms. The soldier then passes into the reserve (Zapas) for 14 or 15 years, during which he receives two trainings of 6 weeks each. After 18 years in the active army and reserve, he is transferred to the Territorial army (Opolchénié) for 5 years. This embraces also the surplus of the annual contingent, thus forming a supplementary reserve, and, in the second "ban," all those exempted from service, those not up to standard, and the older classes of surplus men. There also exists a modified system of volunteers for one year who supply the bulk of officers required for the reserve upon mobilization.

Owing to the enormous extent of the Russian empire, its army is divided into three forces, the army of European Russia, the army of the Caucasus, and the Asiatic army. The Russian battalion contains 1,000 men; 4 battalions constitute a regiment, 2 regiments a brigade and 2 brigades a division. The field batteries are composed of 8 guns, the horse batteries of 6. The ordinary army corps is made up of 2 divisions, a howitzer division and one battalion of sappers, and has a fighting strength of approximately 32,000 men. The rifle brigades form separate organizations of 8 battalions with 3 batteries attached. The Cossacks, who hold their lands by military tenure, are liable to service for life, and provide their own equipment and horses. At 19 their training begins; at 21 they enter the active regiment of their district, at 25 the "second category" regiment, and at 29 the "third category" regiment, followed by 5 years in the reserve. After 25 years of age, their training is 3 weeks per annum. In European Russia the field army consists of the Imperial Guard and Grenadier Corps, 27 line army corps and 20 cavalry divisions; in the Caucasus of 3 army corps and 4 cavalry divisions. The Asiatic army is composed of Russians with a few Turkoman irregular horse (jigits), and is mainly stationed in East Siberia. Since the Russian-Japanese war these forces have been increased and re-organized into a strong army which would mobilize as 5 Trans-Baikal corps and 2 to 4 Cossack cavalry divisions, numbering, together with auxiliary troops, over 200,000 men.

The system of recruitment is territorial, that is, each army corps draws its recruits from a fixed district and is usually quartered in garrisons there. In European Russia the majority of the army is stationed west of the longitude of Moscow, so that mobilization is slower under ordinary circumstances than in France or Germany because the recruits and reservists have long distances to travel, particularly as many are consigned to corps outside Great Russia. The Tsar cannot mobilize 300,000 of his troops within any theatre of operations under three weeks, although four times that number could be assembled one week later. The comparative dearth of railways is a great handicap in the matter of supplies.

The small-arm of the infantry is the "3-line" rifle of the 1901 model. It has a magazine holding 5 cartridges, a calibre of .299 inches, a

muzzle velocity of 2,035 seconds, and is sighted to 3,000 yards. The arm of the cavalry and Cossacks has a barrel 2¾ inches shorter but uses the same ammunition, and is provided with a bayonet which no other mounted troops use. The field piece is a Krupp rapid-fire, shielded gun of the 1902 model, with a muzzle velocity of 1,950 foot seconds, the shell weighing 13½ lbs.

Ordinarily speaking, the standard of the Russian army is distinctly below that of the French and German. Their small-arm is slightly better than our old Krag-Jorgensen, their field piece is inferior to the French and their movements slower, except in the case of the Cossack cavalry which is no match for other European mounted troops. On the other hand, the Russian has always been a capital fighting man, and too much stress cannot be laid upon the value of actual experience in war. It is highly doubtful that the Russians will encounter any harder fighting than they did in Manchuria, and it must be remembered that a great many of the officers and men who fought against the Japanese will participate in the present war. The Russian army will therefore be a potent factor in any equation.

AUSTRIA-HUNGARY

Austria-Hungary's peace establishment is 472,716, the war strength of her regular army 1,360,000. Military service is universal and compulsory, beginning at the age of 19 — but more usually at 21 — and ending at 43. Service with the "Common" or active army lasts for 2 years in the case of the infantry and 3 for the cavalry and horse artillery; in the Landwehr (first reserve) 10 for the infantry and 7 for the cavalry and horse artillery, followed by the Landsturm (second reserve) until the soldier's 42nd birthday. Hungary possesses a separate and distinct Landwehr (Honvéd) and Landsturm (Népfölkelés), which constitute the Hungarian national army. There is also an Ersatz (supplementary) reserve intended to maintain the units of the Common army at full strength. The Ersatz reservists receive 8 weeks training in their first year and are subsequently liable for the same service as the other reservists of the army corps to which they belong.

The Empire is divided into 16 army corps districts, each presumed to furnish a complete army corps of 2 divisions to the active army. Every infantry division is composed of 2 brigades of 8 battalions each, 1 artillery brigade of 10 batteries of 6 guns, a regiment of cavalry, a jäger (rifle) battalion, etc. The army corps also contains a regiment of field artillery or howitzers, a pioneer battalion, a pontoon company, etc., and numbers about 34,000 combatants. There are 6 permanent cavalry divisions, each consisting of 2 brigades (24 squadrons), 3 batteries of horse artillery and a machine-gun detachment and numbering about 4,000 men. It is estimated that Austria's land forces raised to their maximum war strength would be as follows: Common or active army, 1,360,000; Austrian Landwehr, 240,000; Hungarian Landwehr, 220,000; Landsturm, 2,000,000; Ersatz reserve, 500,000; grand total, 4,320,000.

The infantry is armed with the Mannlicher magazine rifle, calibre .315, 1895 model; the cavalry with a carbine of the same make. The field gun, a Krupp, uses a shrapnel of 14½ lbs.; the field howitzer is a 10.5 cm. piece weighing 1,000 lbs. and firing a 30 lb. shell. On a peace footing all batteries have 4 guns, on war footing 6, except the mountain batteries which are provided with 4 guns.

The Hungarian cavalry is admirable; the rest of the army is undoubtedly a good force but scarcely comparable to the French or German armies. It has not fought single-handed since 1866 when it was decisively defeated by the Prussians and their allies at Königgrätz.

ITALY

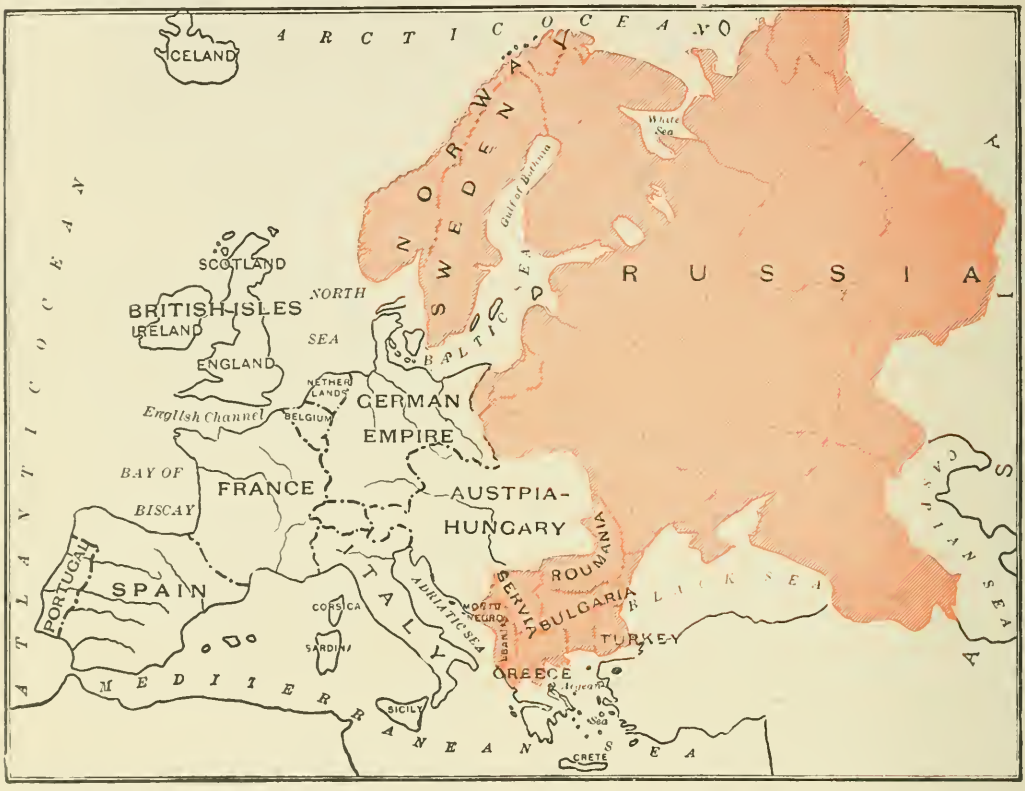
The Italian army on a peace footing numbers 250,860 officers and men, exclusive of the troops in Africa. Service is compulsory and universal, beginning at the age of twenty. Two years in the permanent army are followed by 6 years in the reserve, 4 years in the mobile militia, and 7 years in the territorial militia. In the reserve they receive from 2 to 6 weeks' training which may be extended over several years; in the territorial militia, 30 days' training. Each division consists of 2 brigades composed of 2 regiments, each of 3 battalions, together with a regiment of field artillery (5 batteries) and has a war strength of 14,156 officers and men and 30 guns. Four regiments divided into 2 brigades and 2 horse batteries comprise a cavalry division. Each army corps has 2 divisions — save the IXth which has 3 — a regiment of field artillery (36 guns), 2 or 3 heavy batteries, a regiment of cavalry and one of Bersaglieri (light infantry). Aside from the Carabinieri or military police and the usual auxiliary troops including the aeronautical corps with 7 companies, 30 aeroplanes, and 9 airships, are the Alpini, frontier troops organized for the defense of the mountain passes, consisting of 8 regiments (26 battalions) of Alpine infantry and 2 regiments of 36 mountain batteries. The field army comprises 12 army corps and 3 cavalry divisions, its war strength is about 2,600,000, divided as follows: active army 700,000, mobile militia 400,000, territorial militia, a large part of whom are only partially trained, 1,500,000.

The Italian infantry is armed with the Mannlicher Carcano magazine rifle of 6.5 millimetres calibre, but the territorial militia still uses the old Vetterli rifle. The field artillery is now being rearmed with the De Port gun with a calibre of 7.5 centimetres of the model of 1912.

The Italian army has recently been engaged in war in Africa, and has doubtless profited by its experience.

It is a compact force and well trained.

Apart from the Indian Army and the Local Forces in the various colonies, the military establishment of Great Britain consists of the Regular Army and the Territorial Army, both being recruited by voluntary enlistment between the ages of 18 and 25. The enlistment is for 12 twelve years, with permission under certain circumstances to prolong it to 21 years. Three to nine years is the period with the colors, and the remainder with the Army Reserve, heavy batteries and those of the Territorial Army which have 4. The casual reader will probably be surprised at these figures, but he must remember that during the Boer War England put more than a million men in the field. The United Kingdom is divided into seven "commands" and the London district, all of which include from 2 to 3 territorial divisions and 1 to 4 territorial cavalry brigades in addition to detachments of varying size from



RUSSIA'S TERRITORIAL AMBITION

TO GAIN ACCESS TO THE ATLANTIC AND THE MEDITERRANEAN UNEMBARRASSED BY A BLOCKING ENEMY: AND TO ABSORB ALL THE SLAVIC PEOPLES

most men electing to serve 7 years with the colors and 5 in the reserve. Upon mobilization the existing deficiencies are supplied from the Army Reserve or, to a lesser extent, from the Special Reserve of troops not permanently incorporated but who serve as depot troops, or in fortifications, their term of service being for 6 years. The recruits are subjected to 5 months' training and each year are called out for 3 weeks, supplemented by 6 days' musketry practice for the infantry.

The Home Army consists of 9,740 officers and 172,610 men, the Army Reserve of 147,000, the Special Reserve of 80,120, and the Territorial Army of 315,485, a total of 724,955. Raised to war strength these forces would number 29,330 officers, 772,000 men and 2,072 guns, the batteries being of 6 guns, except the the Regular Army. Two nearly full divisions are stationed at Aldershot and in Ireland, one complete division in the Southern and one in the Eastern "command." There are also 6 aeroplane squadrons, each with 18 aeroplanes.

The Lee-Enfield rifle, calibre .303, is the arm of the infantry and cavalry. In the Regular Army the field artillery has an 18-pounder Armstrong gun, the horse artillery a 13-pounder, the field howitzers are 40-pounders, and the heavy batteries are armed with 60-pounders.

The British army got a severe handling in the Boer War, and profited greatly thereby. The Territorial Army is a force of distinctly uncertain value at present, being very much akin to the American militia, and could scarcely be expected to distinguish itself if pitted against the French or German regulars.

The Belgian army has a peace footing of 3,542 officers and 44,061 men, with a war strength variously estimated at from 300,000 to 350,000. The infantry is armed with the Mauser rifle, the artillery with a shielded Krupp quick-fire piece of 7.5 cm. calibre.

In 1913 the Netherlands had in its Home Army 1,543 officers and 21,412 men and 152 guns. On a war footing it could probably be raised to about 270,000 men. The small arm is the Mannlicher rifle and carbine, the field gun is identical with that of Belgium.

Servia has 10 divisions divided into 4 army corps, with a peace footing of 160,000, and a war strength of over 380,000. The rifle is the Mauser, model of 1899, with a calibre of 7 mm., of which there are not nearly enough to arm the reserves; the field piece a quick-firing gun of the French Schneider-Canet system.

Bulgaria has a peace establishment of about 3,900 officers and 56,000 men, armed with the Mannlicher magazine rifle, calibre .315, the Mannlicher carbine, the Schneider quick-fire gun of 7.5 cm., and a light Krupp of the same calibre for the mountain batteries. On a war footing she could muster 4 army corps and about 550,000 men.

Roumania's army on a peace footing is about 5,460 officers and 98,000 men, on a war footing 5 army corps and approximately 580,000 men. The infantry uses the Mannlicher magazine rifle, .256 calibre, the cavalry the Mannlicher carbine. The field and horse batteries are armed with the Krupp quick-fire, 75 mm. gun of the model of 1903.

In 1912 Greece had a peace establishment of 1,952 officers and 23,268 men, but the recent war has caused her to augment them to 3 army corps and her war footing is not far from 250,000 men. The infantry is armed with the Mannlicher-Schönauer rifle of the 1903 model and the field artillery with Schneider-Canet quick-fire guns.

Few people realize how strongly the frontiers of the Powers of central Europe are fortified — in fact the whole continent bristles with fortifications. Beginning at the point where France, Switzerland, and Germany meet, the eastern frontier of France is guarded by fortresses of the first class at Belfort, Epinal, Toul, and Verdun in the first line, reinforced by Besançon, Dijon, Langres, Rheims, la Fère, and Maubeuge in the second line, with smaller fortifications (forts d'arrets) close to the German frontier at Remirement, Luneville, Nancy, and other points. Along the Italian frontier are

THE PAN-GERMAN DREAM OF A "MARCH TO THE EAST"

BY WHICH GERMANY AND AUSTRIA WOULD GAIN AN AUSTRIAN-OWNED PATH TO CONSTANTINOPLE AND A GERMAN-CONTROLLED COMMERCIAL HIGHWAY THROUGH GERMAN INFLUENCE IN ASIA MINOR

the strong places of Grenoble, Briançon, and Nice, with Lyons in the rear. All her naval harbors are fortified and the defense of Paris consists of 97 bastions, 17 old forts and 38 new advanced forts, the whole forming entrenched camps at Versailles and St. Denis.

The German frontier facing France is guarded by the fortresses of Neu-Breisach, Strassburg, Metz, and Diedenhofen in the first line, with Rastatt, Bitsch, and Saarlouis in the second line, and Germersheim in the rear. Mainz (Mayence) is situated opposite Luxemburg, Coblentz, and Köln (Cologne) opposite Belgium, and Wesel opposite Holland. The northern coast is strongly fortified from Wilhelmshafen to Memmel, the latter forming the extreme end of the cordon of fortresses which guard Germany's eastern frontier, and which consist of Königsberg and Allenstein in the first line, Danzig, Dirschau, Graudenz, Thorn, and the Vistula Passages in the second line. South of this point are Posen, Glogau, and Breslau facing Poland. Beginning at Neisse the defense against Austria consists of strong fortifications at Glatz, Torgau, Ingolstadt, and Ulm, and the approaches to Berlin are guarded by Magdeburg Spandau, and Küstrin.

Russia is protected against attacks from the Germans by the fortresses of Libau on the Baltic, Kovna, Ossovets, and Ust-Dvinsk (formerly Dünamünd) in the Vilna district, and in Poland by Novo-Georgïevsk. Warsaw, and Ivangorod on the Vistula, and Brest-Litovsk on the Bug — four strongholds known as the Polish Quadrilateral. Guarding St. Petersburg are the weaker fortifications of Kronstadt and Viborg, with Sweaborg midway down the Gulf of Finland near Helsingfors. On the Black Sea are Sebastopol and Kertch in the Crimea and Otchokov near Odessa.

Austria's fortifications consist of the strong places of Cracow and Premysl on the road to Lemberg in Galicia, facing Poland; in Hungary she has Gyula-Fehérvár (Karlsburg) and Arad on the Maros River guarding the approach from the angle of Roumania, while on her frontier facing Servia are Alt-Orsova and Pétervárad (Peterwardein) on the Danube, and Sarajevo in Bosnia, with Temesvár and Komorn blocking the approach to Vienna from the southeast. On the Adriatic are Cattaro on the edge of Montenegro, and the naval arsenals of Pola and Trieste. All the Alpine passes of the Tyrol are fortified, but neither Vienna nor Budapest have any defenses.

Italy's fortifications, aside from those on her coasts, extend in a line from Venice, through Verona, Mantua, and Piacenza to Alessandria and Casale which face the French frontier.

GENERAL MILITARY SITUATION

"Strategy consists in getting there first with most men," according to the statement ascribed to General Forrest, a Southern partisan leader, and a better definition it would be hard to give. Germany and Austria being in the centre of Europe have shorter distances to traverse to reach any given point on their frontiers than is the case with their adversaries who are separated by these two empires. They can also mobilize their forces more quickly than their opponents — with the exception of the French — and their combined armies are more homogeneous than are the allies. On the other hand they are inferior in numbers to their adversaries, Germany having 4,000,000, and Austria 4,320,000, a total of 8,320,000, against 3,878,000 French, 5,962,000 Russians, 500,000 Servians, and 350,000 Belgians, a total of 10,690,000. Napoleon declared that "the strength of an army, like the amount of movement in mechanics, is estimated as the mass multiplied by the rapidity," and he demonstrated the proper method to pursue in situations almost identical with those of to-day. Falling with the utmost rapidity and all the forces he could muster upon one of his adversaries, he inflicted a crushing defeat. Leaving a "containing force" at that point, he then turned with all his strength against the other adversary, repeating his successive blows in one or both directions until his opponents were destroyed. So long as he kept them asunder their superior numbers availed them nothing, and his own success was assured; once they were permitted to combine, his defeat was certain. In such manœuvres the forces must be kept closely united and moved with all possible rapidity, otherwise the advantage conferred by "interior lines" will be wholly lost.

If the Germans and Austrians are to escape being crushed by the mere weight of numbers they must pursue a similar course. If they elect to attack the French and Belgians, strategic wisdom would require their leaving on their eastern frontiers forces of sufficient strength to be able, in conjunction with their fortifications, to prevent the Russians and Serbs from penetrating in their rear. If they prefer to attack to the east the operation must be reversed. In either case they ought to be able to outnumber their adversaries on the east or those on the west, but if they attack in both directions at the same time, they are sure to be defeated by superior forces.

The indications are that a first stroke to the east would produce the greater results, since the Russians cannot mobilize under twenty-six days at least, and nearly a month must elapse before they are fully ready to begin a forward movement in any great force. It would therefore be possible, if the Germans and Austrians act quickly, to inflict a crushing blow upon them before they are ready. This might open the road to St. Petersburg — which is no farther from Königsberg than Berlin is from Paris — and so long as the German fleet commands the Baltic, the troops could be largely supplied from transports at several points en route. This operation while possible under certain conditions, would be extremely hazardous. On the

other hand, in an advance to the west, the most advantageous lines of advance are from Coblenz up the Mosel and through Luxemburg, or from Cologne through Belgium, issuing either through Sedan or through the valley of the Meuse into France, at a distance of about 140 miles from Paris. The violation of Belgium's neutrality and the opposition of her forces is not to be compared to the advantage thus conferred. Furthermore the French fortifications up a veritable hornet's nest, for the Swiss have 500,000 well trained men.

On the eastern frontiers the fortifications — German, Austrian, and Russian — present analogous difficulties but in a far lesser degree. Russia cannot issue from western Poland without exposing her right flank to a German attack from East Prussia, and her left to an attack from Galicia, or Bohemia. The roads into Germany north of Poland are strongly guarded

THE FORTRESSES OF EUROPE

EVERY PLACE THAT IS NAMED ON THIS MAP IS A FORTIFIED STRATEGIC SITE THAT IS VITAL TO THE DEFENCE OF THE COUNTRY IN WHICH IT LIES

guarding these lines are not so strong as they ought to be, whereas those from Epernay south to Belfort will not be easy to break through if reinforced by the French armies. In this connection it may be observed that Germany's frontier from Basle to Luxemburg is 242 miles in length, Luxemburg adds 111 miles, and Belgium 70 miles. With several million men packed into this space, and resting on a line of powerful modern fortifications, the difficulty of either side to break through will be apparent, especially if the troops resort to field entrenchments, as they undoubtedly will do. Under the circumstances, it is difficult to see how Germany can realize her boast that she will crush France and be in Paris in three weeks, particularly since Victor Emmanuel has not given his adhesion and Italy cannot be utilized for a diverting attack against southern France. To violate the neutrality of Switzerland would stir by fortifications, so that it is probable that she will invade Galicia between Cracow and Lemberg, in the effort to crush the Austrians, or to separate them from the Germans. An advance from any of the Balkan states would be less hazardous but, on the other hand, less productive of results.

Should Italy indefinitely join England, France, and Russia, her 12 army corps in conjunction with Servia's 4 corps could probably neutralize in a large measure Austria's 16 corps and prevent their rendering any material assistance to Germany either by holding the Russians in check or by joining in an attack against France.

Broadly speaking such are the most probable operations to be attempted during the first stage of the war. When the terrific struggle has terminated, the map of Europe — perhaps of certain other portions of the globe — may be materially changed.

ASIA, AFRICA, AND THE ISLANDS OF THE SEAS

WHERE THE FIGHTING EUROPEAN NATIONS MEET IN OTHER CONTINENTS AND DISTANT OCEANS AND HOW THIS STRUGGLE MAY CHANGE THE GEOGRAPHY OF THE WORLD

THE third day of August was the critical day in this world war. Unseen underlying causes had been at work for years, for generations. But in that one week from July 28th to August 4th the curtain rolled up and one after another the nations in their true colors stepped into the theatre of war. In all human history there has never been a spectacle so tremendous.

On the third day of August the Kaiser played his last card. Russia, France, and Servia were already lined up against the Austrian-German alliance. Italy, under her declaration of neutrality, hung yet in the throes of indecision. The one overwhelming element yet uncommitted was the sea power of England. To hold that element neutral, even for a month, would have justified almost any promise Germany could have made. And the price Germany offered is exceedingly significant of the universal stakes for which this war will be fought out to the end. As the price for England's neutrality, Germany offered to guarantee the territorial integrity of Belgium and Holland, and offered to England one half the colonial possessions of France. That was the day of Belgian pluck and British wisdom. On the next day Germany attacked Liège and declared war on England.

When this war is over and the smoke has cleared away conquerors and conquered will come together and settle the price of peace. The largest element in that price will be territory, for in terms of territory are the hostile ambitions of the fighting nations expressed. Nationality and territory, these will be redefined. The map as we have known it is gone.

If in the end Germany and Austria prevail, it is difficult to exaggerate the geographical changes that will follow as a consequence of German supremacy on land and sea. If the ill assorted Anglo-Latin-Slav alliance crushes the imperial German incubus, which has threatened them all these last forty years, territorial changes will be less extensive, but equally fundamental. In the latter case something in the nature of balance of power between the victorious allies will restrict the readjustment after German expansion has been stamped out. In the former case no such thing as the balance of power, as it has been hitherto understood among the nations of Europe, will survive. All that can then restrain a victorious Germanic imperialism will be a possible internal dissension following upon a devastating war, and the creation of a new balance of power, as between Germany, the United States, and the dominant nation of the Far East. In any case the most impressive geographical changes will probably not be made in the map of Europe. A nation cannot be wiped off the map. The great changes in international geography will be made in the colonial possessions of the expanding nations. Colonies can be wiped off the map or painted a different color.

Besides the British Empire of India, with its three hundred millions of alien population, Great Britain also means the enormous federated territory of Australia and Canada. The highly improbable, but not impossible, event of crushing naval reverses for England, would mean the loss of India. Canada and Australia would at once become negligible as props to England's crippled fortune. So much of the situation is clear, though in its consequences by no means easy to appreciate.

In Africa, Asia, and the islands of the Pacific, Germany to-day owns 1,134,239 square miles of territory, with a population of 14,883,950 thoroughly dominated but only partially convinced subjects. Germany is an impressive colonial empire, even if one does not count the German dominance in Asiatic Turkey and the outpost colonies of trade-controlling Germans in Spanish-speaking republics of South America. Germany's actual territory outside of Europe is five times larger than all the German Empire in Europe. If you will observe on the accompanying map the disposition of this territory over the world you will find some very interesting phases of a general European war which are not generally understood.

Four fifths of Germany's colonial possessions are in Africa. Bordering north on the British territory, now made familiar in America by moving picture expeditions and the big game hunting of our Ex-president, is German East Africa, almost exactly the size of all our Atlantic Coast states from Maine to Florida. Notched into British South Africa over on the Atlantic side is German southwest Africa, greater in extent than Spain and Italy combined. Farther north, up the west coast, Germany in the Kamerun and Togoland owns more real estate than is covered by all of France and the British Isles.

THE COLONIAL POSSESSIONS OF THE GREAT POWERS

AS THEY WERE AT THE OPENING OF THE WAR. THESE ARE THE SPOILS OF CONQUEST WHICH THE VICTORS WILL ALMOST CERTAINLY SEIZE AND DIVIDE AMONG THEMSELVES

The important thing to realize is that nearly all this territory is mutually contiguous and without natural boundaries. Germany in Africa is separated from England only by a surveyor's arbitrary line. Another thing should be carefully noticed: Throughout all central and southern Africa, wherever German soil does not actually touch upon British, the two domains are separated in every instance by either Belgian, Portuguese, or French territory. France, Belgium, and Portugal are allies of England. In a general way, to prophesy the redemarcation of the surveyor's lines across Africa when this war shall have been fought out to a finish would not be difficult. The whole political complexion of Africa may be changed. Meanwhile, as the war progresses and the attention of the world is focused upon the main theatre of events in central Europe, it is important to remember that there are large bodies of British, French, and German troops in Africa, and that when it comes to treaties of peace actual possession of colonial territory counts nine tenths in the settlement, such acquisitions being either permanently retained or bartered for a heavy compensating price. There will be some fighting in Africa to keep borders intact until the judgment day of peace arrives. Already in the first week of the war a British force has promptly moved upon and captured Lome, the capital of Togoland, which lies between French Dahomey and the British Gold Coast on the Gulf of Guinea.

WAR ON THE OTHER SIDE OF THE WORLD

In the Far East the situation, as defined by the present stage of this war, is at first glance much less impressive, although on the other side of the world European nations come almost as closely into touch on the continent of Asia and the islands of the Pacific as they do in Africa. So far as operations concurrent with those in Europe are concerned, the problem in Africa is a military one; in the Far East it is purely a naval problem.

Turning to the map again we shall find England almost impregnably established in another Gibraltar on the small island of Hong-Kong, on the south coast of China. This citadel island, only ten miles long, which is also England's easternmost naval base, contains, with a strip of adjacent mainland and some other lesser islands, 390 square miles of British territory. This is the only land England owns in China, though in that grab-bag country she has many railroad, mining, and other concessions which are as worthy of preservation. So has Germany similar concessions of great value, nearly every one of which has been won after the bitterest kind of competition with England. With her coal supplies, dry-docks, and forts, Germany is established around a land-locked harbor at Kiao-Chau, on the China Sea, across the way from Korea. This is the strategic position gained by the Kaiser's famous "mailed fist" policy in 1897. It represents the price China then paid for two dead German-Lutheran missionaries. Only a world-dominant "mailed fist" can hold it now, and the price to be paid will exceed many missionaries. It would be a valuable possession for England, and an almost invaluable one for her ally, Japan.

As the coastwise steamers sail, Kiao-Chau is 1,200 miles away from Hong Kong and, correspondingly to the latter's character, it is the only territory Germany actually owns in China, although a so-called sphere of influence around it in the province of Shantung amounts to nearly 3,000 additional square miles of Germanic lands.

Hong-Kong and Kiao-Chau — these are the bases of German and British naval operations in the northern Pacific and along the Chinese coast. It remains, then, to speak of the new situation just created in the southern Pacific. Strewn along from the Indian Ocean far out into the Pacific extends a wonderfully vast archipelago which includes our own Philippine group. Here, also, with hundreds of leagues of elbow room, Germany and England have been crowding upon each other's toes these many years. Beginning a thousand miles and more southeast of Mindanao, the German flag waves over hundreds of settlements in what is called, administratively, German New Guinea, including the Marshall and Solomon islands, the widely scattered Carolines, and the Marianas. Far out in mid-Pacific lie the two Samoan Isles which belong to Germany. Interspersed all through this distributed territory, but far more numerous and populous, are scattered the British Pacific islands: the Straits Settlements, Borneo, British Guinea, the Gilberts, Fiji, the Papuans, and many other groups. On the big island of New Guinea England and Germany occupy adjoining quarters of the total area, Holland owning the other half as well as the neighboring rich groups of Java, the Celebes, and Moluccas, on which Germany has looked for years with covetous eyes.

The geographical neighborhood southward of British Australia and New Zealand must be particularly noticed since these dominions now maintain a small navy of twelve ships and efficient colonial forces of their own. The joint possessions of Germany and England stretch for nearly 8,000 miles from Singapore to the edge of the Marquesas Islands. The operation of the small Antipodean fleets of Germany and England will, therefore, probably be confined within easy reach — say, a thousand miles — of their respective coaling bases. The situation contains infinite possibilities in the way of preying upon the enormous volume of commerce borne over those long sea lanes in German and British bottoms, with a great scarcity of neutral ports as havens of refuge. Moreover, France has ships and soldiers at Tonkin, in south China; Russia keeps some sea-going destroyers at Vladivostock, and if Holland joins Belgium in defense of their European integrity Dutch men-of-war will be heard from in the Pacific.

THE NAVIES OF EUROPE

ENGLAND, FRANCE, GERMANY, RUSSIA, AND AUSTRIA

THE present war is an exception to the general rule that dominion is won or lost by the preponderance of sea-power or its opposite. At the moment of this writing the navies of all the great Powers except Italy are involved in the struggle. On one side those of Great Britain, France, and Russia; on the other, Germany and Austria. The preponderance of force is thus very great against the Germanic Powers.

Great Britain has political dominion over nearly 35 per cent. of the habitable land of the globe and over 27 per cent. of its population, the total of which is estimated by one of the best authorities at 1,623,300,000. No such empire has ever before existed, and it is for the looking after of these tremendous and wide-scattered interests that the great navy of Britain exists. For all her highways of communication are across the seas. For this duty she has, now completed, 60 modern battleships, 9 battle-cruisers, 34 armored cruisers, 17 heavy protected cruisers, 70 light cruisers, 232 destroyers now ready and 16 building, 59 torpedo boats (and 50 old ones), and 75 submarines, besides 52 sea-going auxiliaries of the fleet, such as mother ships for destroyers, mine-layers, distilling ships, oil ships, repair and hospital ships.

The following are the details of this great fleet, the types in each class being separated into groups:

The first group, completed between 1895 and 1898, includes the following battleships: *Magnificent, Majestic, Prince George, Victorious, Jupiter, Caesar, Mars, Hannibal, and Illustrious.*

They are all of 14,900 tons displacement, 12,000 horse-power, and 2,000 tons coal capacity. They have a speed of 17.5 knots, 9 inches of armor belt, and from 10 to 14 inches protection for the big guns. The armament consists of 4 12-inch, 12 6-inch rapid fire, 16 3-inch rapid fire, 12 3-pounder rapid fire, 2 light rapid fire, and 2 machine guns. They have one torpedo tube above water and two under water.

The next class includes six battleships, completed between 1900 and 1902: *Canopus, Ocean, Goliath, Glory, Vengeance,* and *Albion.*

They are of 12,950 tons displacement, 13,500 horse-power, and 2,300 tons coal capacity. They have a speed of 18.25 knots, 6 inches of armor belt, and from 8 to 12 inches protection for the big guns. The armament consists of 4 12-inch rapid fire, 12 6-inch rapid fire, 10 3-inch rapid fire, 2 light rapid fire, and 2 machine guns. They have 4 torpedo tubes.

Then come eight ships, finished between 1901 and 1904: *Formidable, Irresistible, London, Bulwark, Venerable, Implacable, Queen,* and *Prince of Wales.*

They are of 15,000 tons displacement, 15,000 horse-power, and 2,000 tons coal capacity. They have a speed of 18 knots, 6 to 9 inches of armor belt, and from 8 to 12 inches protection for the big guns. The armament consists of 4 12-inch, 12 6-inch rapid fire, 16 3-inch rapid fire, 2 light rapid fire, and 2 machine guns. They have 4 torpedo tubes.

During 1903 and 1904 also were finished the *Albemarle, Duncan, Exmouth, Russell,* and *Cornwallis.*

They are 14,000 tons displacement, 18,000 horse-power, and 2,100 tons coal capacity. They have a speed of 18 knots, 6 to 9 inches of armor belt, and from 6 to 11 inches protection for the big guns. The armament consists of 4 12-inch, 12 6-inch rapid fire, 12 3-inch rapid fire, and 2 machine guns. They have 4 torpedo tubes.

In 1904 the smaller *Triumph* and *Swiftsure* were launched.

They are 11,800 tons displacement, 12,500 horse-power, and 2,000 tons coal capacity. They have a speed of 19 knots, 3 to 7 inches of armor belt, and from 6 to 10 inches protection for the big guns. The armament consists of 4 10-inch, 14 7.5-inch rapid fire, 14 14-pounder rapid fire, 4 6-pounder rapid fire, 2 light rapid fire, and 4 machine guns. They have 2 torpedo tubes.

Between 1904 and 1906 eight battleships were launched: *Dominion, King Edward VII, Commonwealth, Zealandia, Hindustan, Britannia, Africa,* and *Hibernia.*

They are of 16,350 tons displacement, 18,000 horse-power, and 2,150 coal tons capacity. They have a speed of 18.5 knots, 6 to 9 inches of armor belt, and from 8 to 12 inches protection for the big guns. The armament consists of 4 12-inch, 4 9.2-inch, 10 6-inch rapid fire, 14 3-inch rapid fire, 14 3-pounder rapid fire, and 2 machine guns. They have 4 torpedo tubes.

In 1907 came the famous *Dreadnaught,* with its 17,900 tons displacement, 23,000 horse-power (turbine), 21 knots speed, and 2,700 tons coal capacity. Her armor belt is 11 inches and the big gun protection from 8 to 11 inches. She has 10 12-inch guns, 24 3-inch rapid fire, 5 machine guns, and three torpedo tubes.

In 1908 the *Agamemnon* was launched, and in 1909 the *Lord Nelson.*

They are of 16,000 tons displacement, 16,750 horse-power, and 2,500 tons coal capacity. They have a speed of 18 knots, 4 to 12 inches of armor belt, and from 8 to 12 inches protection

for the big guns. The armament consists of 4 12-inch 10 9.2-inch, 24 3-inch rapid fire, and 5 machine guns. They have 5 torpedo tubes.

In 1909 England launched three battleships, *Bellerophon*, *Temeraire*, and *Superb*.

They are of 18,600 tons displacement, 23,000 horse-power (turbine), and 2,700 tons coal capacity. They have a speed of 21 knots, 11 inches armor belt, and from 8 to 11 inches protection for the big guns. The armament consists of 10 12-inch, 16 4-inch rapid fire and 5 machine guns. They have 3 torpedo tubes.

In 1910 three more ships followed: *St. Vincent*, *Collingwood*, and *Vanguard*.

They are 19,250 tons displacement, 24,500 horse-power (turbine), and 2,700 tons coal capacity. They have a speed of 21 knots, 9.75 inches of armor belt, and from 8 to 11 inches protection for the big guns. The armament consists of 10 12-inch, 20 4-inch rapid fire, and 6 machine guns. They have 3 torpedo tubes.

In 1911 there were four ships launched, three of them, the *Neptune*, *Colossus*, and *Hercules* of one type.

They are 20,000 tons displacement, 25,000 horse-power (turbine), and 2,700 tons coal capacity. They have a speed of 21 knots, 11 inches of armor belt, and from 8 to 12 inches protection for the big guns. The armament consists of 10 12-inch, 16 4-inch rapid fire, and 6 machine guns. They have 3 torpedo tubes.

The *Orion*, launched in 1911, and the *Conqueror*, *Thunderer*, and *Monarch*, of 1912, formed the next type.

They are of 22,500 tons displacement and 27,000 horse-power (turbine). They have a speed of 21 knots, 12 inches of armor belt, and from 8 to 12 inches protection for the big guns. The armament consists of 10 13.5-inch, 16 4-inch rapid fire, and 6 machine guns. They have 3 torpedo tubes.

The *King George V*, of 1912, and the *Centurion*, *Ajax*, and *Audacious*, of 1913, form the next class.

They are of 23,000 tons displacement, 31,000 horse-power (turbine), and 3,700 tons coal capacity. They have a speed of 21.5 knots, 12 inches of armor belt, and from 8 to 12 inches protection for the big guns. The armament consists of 10 13.5-inch, 16 4-inch rapid fire, and 6 smaller guns. They have 3 torpedo tubes.

This year there are two types. In the first are the *Iron Duke*, *Marlborough*, *Emperor of India*, and *Benbow*.

They are of 25,000 tons displacement, 39,000 horse-power (turbine), and 4,000 tons coal capacity. They have a speed of 22.5 knots, 12 inches of armor belt, and 8 to 12 inches protection for the big guns. The armament consists of 10 13.5-inch, 12 6-inch rapid fire, and 6 smaller guns. They have 5 torpedo tubes.

The second type for this year includes the *Queen Elizabeth* and *Warspite*.

They are of 27,500 tons displacement, 58,000 horse-power, (turbine) and 4,000 tons oil capacity. They have a speed of 25 knots, 13.5 inches of armor belt, and from 8 to 13.5 inches protection for the big guns. The armament consists of 8 15-inch, 16 6-inch rapid fire, and 12 3-inch rapid fire guns. They have 5 torpedo tubes.

The four last, though possibly not yet ready for service, are due for completion this year and will of course under the circumstances of war be hastened to completion. There are also building the *Valiant*, *Barham*, and *Malaya* of the same type as the *Queen Elizabeth*, and the *Royal Sovereign*, *Royal Oak*, *Resolution*, *Ramillies*, and *Renown*, of 29,000 tons, 44,000 horse-power turbines, and of the same armament as the *Queen Elizabeth*. These last eight ships will not be ready until next year.

Great Britain thus has afloat and ready for service sixty battleships, twenty of which are of the *Dreadnaught* or big gun type. In addition to these there are ten battle cruisers, equal to taking their place in the line of battle, of which nine are now ready and the other nearly so. They are the *Inflexible*, *Indomitable*, *Invincible*, of 17,250 tons displacement and 41,000 horse-power(turbine), the *Indefatigable*,of 18,750 tons displacement and 43,000 horse-power (turbine): the *New Zealand*, of 18,800 tons, and the *Australia*, with 19,200 tons displacement, both with 44,000 horse-power developed by turbine-engines. All these ships have a speed of 25 knots, 8 inches of armor belt, 10 inches big gun protection, and a coal capacity of 2,500 tons. Their armament is 8 12-inch, 16 4-inch quick fire, 5 machine guns and 5 torpedo tubes.

The *Lion* and the *Princess Royal*, launched in 1912, and the *Queen Mary*, of 1913, are alike, except that the *Queen Mary* has 27,000 tons displacement and 75,000 horse-power.

The other two have 26,350 tons displacement, 70,000 horse-power, and 3,500 tons coal capacity. They have a speed of 28 knots, 9.75 inches of armor belt, and 10 inches protection for the big guns. The armament consists of 8 12-inch, 12 4-inch quick fire and 5 machine guns. They have 2 torpedo tubes.

This year's battle cruiser, the *Tiger*, has 28,000 tons displacement, her turbines develop 110,000 horse-power, she has a speed of 30 knots, 10.75-inch armor belt, and 11-inch protection for the big guns. Her coal capacity is 4,000 tons. She has 8 13.5-inch, 12 6-inch quick fire, and 5 machine guns.

Following these are thirty-four armored cruisers of high speed, which may be called general service ships, to be used for scouting or fighting as the case may be. They have neither the armament nor protection to enable them to take a place in the line-of-battle, but their speed is sufficient to evade action with all battleships now in actual service. The list is as follows:

Completed between the years 1901 and 1904 are the *Cressy*, *Sutley*, *Aboukir*, *Hogue*, *Bacchante*, and *Euryalus*.

They are of 12,000 tons displacement, 21,000 horse-power, and 1,600 tons coal capacity. They

have a speed of 21 knots, 6 inches of side armor, and 6 inches protection for the big guns. The armament consists of 2 9.2-inch, 12 6-inch rapid fire, 12 3-inch rapid fire, 5 smaller rapid fire, and 2 machine guns. They have 2 torpedo tubes.

In 1902–3 the *Drake*, *Good Hope*, *Leviathan*, and *King Alfred* were launched.

They are of 14,100 tons displacement, 30,000 horse-power, and 2,500 tons coal capacity. They have a speed of 23 knots, 6 inches of side armor, and from 5 to 6 inches protection for the big guns. The armament consists of 2 9.2-inch, 16 6-inch rapid fire, 14 3-inch rapid fire, 3 smaller rapid fire, and 2 machine guns. They have 2 torpedo tubes.

In 1903–4 were launched *Kent*, *Essex*, *Monmouth*, *Berwick*, *Donegal*, *Lancaster*, *Cornwall*, *Cumberland*, and *Suffolk*.

They are of 9,800 tons displacement, 2,200 horse-power, and 1,600 tons coal capacity. They have a speed of 23 knots, 4 inches of side armor, and 5 inches protection for the big guns. The armament consists of 14 6-inch rapid fire, 8 3-inch rapid fire, 5 smaller rapid fire, and 8 machine guns. They have 2 torpedo tubes.

In 1905 the *Antrim*, *Carnavon*, *Hampshire*, *Devonshire*, *Roxburgh*, and in 1906, the *Argyle* were launched.

They are of 10,850 tons displacement, 21,000 horse-power, and 1,800 tons coal capacity. They have a speed of 22.3 knots, 6 inches of side belt, and from 5 to 6 inches protection for the big guns. The armament consists of 4 7.5-inch, 6 6-inch rapid fire, 24 small rapid fire, and 2 machine guns. They have 2 torpedo tubes.

The *Black Prince*, *Duke of Edinburgh*, *Cochrane*, and *Natal* were launched in 1906, and the *Achilles* and *Warrior* in 1907.

They are of 13,550 tons displacement, 23,500 horse-power, and 2,000 tons coal capacity. They have a speed of 22.3 knots, 6 inches of armor belt, and 6 inches protection for the big guns. The armament consists of 6 9.2-inch, 10 6-inch rapid fire, 22 small rapid fire, and 8 machine guns. They have 3 torpedo tubes.

In 1908 came the *Shannon*, *Minotaur* and *Defence*.

They are of 14,600 tons displacement, 27,000 horse-power, and 2,250 tons coal capacity. They have a speed of 23 knots, 6 inches of armor belt, and 8 inches protection for the big guns. The armament consists of 16 6-inch rapid fire, 12 3-inch rapid fire, 14 smaller rapid fire, and 2 machine guns. They have 5 torpedo tubes.

The details of the actual fighting ships of importance are completed with the following seventeen heavily protected cruisers:

Edgar (1893), *Endymion* (1893), *Hawke* (1893), *Grafton* (1894), *Theseus* (1894), of 7,350 tons displacement.

They have 12,000 horse-power and 1,250 tons coal capacity. They have a speed of 19.5 knots, 5 inches of protective deck, and 6 inches protection for the big guns. The armament consists of 2 9.2-inch, 10 6-inch rapid fire, 17 smaller rapid fire, and 2 machine guns. They have 2 torpedo tubes.

The *Gibraltar*, *Crescent*, and *Royal Arthur*, of 7,700 tons, have the same speed, armor, and coal capacity. Their armament, however, is 1 9.2-inch, 12 6-inch rapid fire, 19 smaller rapid fire, and 2 machine guns, and 2 torpedo tubes.

The *Terrible* in 1898 was in a class by itself. She is 14,460 tons displacement, 25,000 horse-power, and 3,000 tons coal capacity. She has a speed of 22 knots, 6 inches of protective deck, and 6 inches protection for the big guns. The armament consists of 2 9.2-inch, 16 6-inch rapid fire, 16 3-inch rapid fire, 14 smaller rapid fire, and 2 machine guns.

Between 1899 and 1902 twelve heavily protected cruisers were built, all of 11,000 tons displacement. The *Diadem*, *Europa*, *Niobe*, and *Andromeda* had 16,500 horse-power, the *Amphitrite*, *Argonaut*, *Ariadne*, and *Spartiate*, 18,000 horse-power.

Each has 2,000 tons coal capacity; a speed of 20.5 knots, 4 inches of protective deck, and 6 inches protection for the big guns. The armament consists of 16 6-inch rapid fire, 12 3-inch rapid fire, 14 smaller rapid fire, and 2 machine guns. They have 2 torpedo tubes.

The first eight of these ships are comparable to our *Saratoga* and *Brooklyn*. The others are larger, but have not higher speed than these two. They could not stand for a moment before any of the classes preceding them.

Following these are eight of 3,600 tons displacement which should be ready this year. They were designed for scouts. They have 37,000 horse-power turbines, and a designed speed of 30 knots. They carry only the light armament of 2 6-inch rapid fire, 6 4-inch rapid fire, and 2 machine guns. Eight more of 8,740 tons of 40,000 horse-power, and 30 knots, with the same armament, the same fuel capacity (of 750 tons of oil) will not be ready until next year. All have a belt of 3-inch steel and 4-inch protection for the guns. They are, of course, in no sense fighting ships, but their rôle is of the utmost importance; that of supplying information regarding the whereabouts of an enemy.

Of the seventy protected light cruisers now ready (twenty-eight of which antedate 1900), varying from 2,135 to 5,880 tons, there are twenty-six with a speed of 25 knots. None carry heavier than 6-inch guns and can be reckoned, for war, chiefly as scouts. No one of them has more than 1,225 tons fuel capacity, and most of them much less. Their radius of action is thus moderate.

One hundred and thirty-four of the 232 completed destroyers are of ocean-going type, and nearly all these are oil-burners and of from 30 to 35 knots. All exceed 700 tons displacement; 70 exceed 800 tons; 40 are about 1,000, and 16 are from 1,200 to 1,350 tons. One, the *Swift*, launched so long ago as 1907, has a dis-

placement of 2,170 tons, 30,000 horse-power, and a speed of 36 knots. All are armed usually with 4-inch guns not exceeding four in number, and the majority carry 21-inch torpedo tubes. Such torpedoes of the best type have a range of more than five sea miles (say six land miles) at an average speed of 24 knots. Great Britain has 75 destroyers and 22 building.

In addition to the ships mentioned, England has at command 3 merchant steamers of more than 25 knots; 4 of from 22 to 25; 11 from 20 to 22, and 29 from 18 to 20. These can all be utilized for cruising, but they can play no real part in the present war except as against like vessels of Germany, which latter is almost equally well off in this respect.

The French navy, though fourth in rank of naval Powers, naturally comes after that of England as an ally. There are on the list eighteen battleships of the older types which can be considered serviceable, ranging in dates of launching from 1894 to 1909. As generally in France not less than four, and often five, years passed from the time of "laying down" to completion, it will be seen that most of these eighteen are by no means modern. Four up-to-date modern ships are, however, completed and are ready for service.

The *Carnot* was launched in 1896. Her displacement is 11,954 tons, her horse-power 15,000, and her coal capacity 700 tons. Her speed is 18 knots, her side armor 17.75 inches, and her big gun protection 13.75 inches. Her armament, like that of the *Masséna*, launched in 1898, is 2 12-inch, 2 10.8-inch, 8 5.5-inch rapid fire, and 28 smaller guns, and 2 torpedo tubes above water, and 2 below. The *Massena's* displacement is 11,735 tons, her horse-power 13,500, and her coal capacity 800 tons. Her speed is 18 knots, her side armor is 17.75 inches, and the big gun protection from 8.5 to 16 inches.

In 1898 France also launched the *Charlemagne*, and *Gaulois*, and in 1900 the *St. Louis*. They are of about 11,000 tons displacement, 14,500 horse-power, and 1,100 tons coal capacity. They have a speed of 18 knots, 14 inches of side armor, and from 8 to 13 inches protection for the big guns. The armament consists of 4 12-inch, 12 5.5-inch rapid fire, 8 3.9-inch rapid fire, 20 smaller guns. They have 4 torpedo tubes.

The *Bouvet* (1898) of 12,000 tons, has 14,000 horse-power, and 800 tons coal capacity; 18 knots speed, 16 inches side armor, and 8 to 14.75 inches of protection for the big guns. She carries 2 12-inch, 2 10.8-inch rapid fire 8 5.5-inch rapid fire, and 19 smaller guns. She has 2 torpedo tubes above water and 2 below water.

The *Suffren* (1903), of 12,527 tons, has 16,200 horse-power, and 1,820 tons coal capacity; 18 knots speed, 11 inches side armor, and 9 to 13 inches of protection for the big guns. She carries 4 12-inch, 10 6.4-inch rapid fire, 8 3.9-inch rapid fire, and 30 smaller guns. She has 2 torpedo tubes above water and 2 below.

The *République* (1906) and *Patrie* (1907), of 14,635 tons, has 18,000 horse-power, and 1,825 tons coal capacity; 18 knots speed, 11 inches side armor, and 9 to 13 inches of protection for the big guns. She carries 4 12-inch, 18 6.4-inch rapid fire, and 28 smaller guns. She has 2 torpedo tubes under water.

The *Democratie*, the *Justice*, and the *Vérité* were launched in 1908.

They are of 14,640 tons displacement, 18,000 horse-power, and 1,825 tons coal capacity. They have a speed of 18 knots, 11 inches of side armor, and from 9 to 13 inches protection for the big guns. The armament consists of 4 12-inch, 10 7.6-inch rapid fire, and 28 smaller guns. They have 2 torpedo tubes.

In 1911 came the *Danton, Mirabeau, Diderot, Condorcet, Voltaire*, and in 1912 the *Vergnaud*.

They are of 18,027 tons displacement, 22,500 horse-power (turbine) and 2,100 tons coal capacity. They have a speed of 19.25 knots, 10 inches of side armor and from 9 to 12 inches protection for the big guns. The armament consists of 4 12-inch, 12 9.4-inch rapid fire, 16 3-inch rapid fire, and 8 smaller guns. They have 2 torpedo tubes.

The *Jean Bart* and the *Courbet* were launched in 1913, and the *France* and *Paris* in 1914.

They are of 23,095 tons displacement, 28,000 horse-power (turbine), and 3,000 tons coal capacity. They have a speed of 20 knots, 10½ inches of side armor, and from 9 to 12 inches protection for the big guns. The armament consists of 12 12-inch, 22 5.5-inch rapid fire, and 8 smaller guns.

There are building, to be completed in the next two years, eight more ships of about the same displacement as the four last, six of which are to have one knot more of speed, with 11 and 12½ inches of side armor and the last five with 9 to 17 inches of big-gun protection. Three of these ships are to carry 10 13.4-inch guns, and the others 12. None are now ready.

France has no battle-cruisers but has nineteen armored cruisers, one of which, the *Pothuau*, is of but 5,374 tons; one the *Jeanne d'Arc* of 11,092; three, the *Gueydon, Montcalm*, and *Dupetit Thouars* of 9,367; three (completed in 1903), the *Dupleix, Desaix*, and *Kleber* of 7,578 tons; four, the *Marseillaise, Gloire, Aube*, and *Condé* of 9,856 tons; three (completed in 1904–1906), the *Leon Gambetta, Jules Ferry*, and *Victor Hugo* of 12,351 tons; two (1908 and 1909) the *Jules Michelet*, and *Ernest Renan* of 12,370 and 13,427 tons; and two (1910 and 1911), the *Edgar Quinet* and *Waldeck Rousseau* of 13,780 tons. The heavier of these ships has a designed speed of 23 to 23½ knots, 6 to 6¾ inches side armor, and 8-inch protection to their larger guns. They carry from 2,100 to 2,300 tons of coal. Their main batteries are generally of 2 7.6-inch rapid fire, and 8 6.4-inch rapid fire. The *Gambetta* class, however, carries 4 7.6-inch with 16 6.4-inch, both rapid fire. The *Edgar Quinet* and *Waldeck Rousseau* carry 14 7.6-inch rapid fire.

BRITAIN'S STRONGHOLD IN ASIA

HONG-KONG, CHINA, WHERE THE BRITISH FORCES IN THE EAST MOBILIZED TO PROTECT THEIR POSSESSIONS

GIBRALTAR, THE KEY TO THE MEDITERRANEAN SEA

BRITAIN'S MOST IMPORTANT FORTRESS. THE FAMOUS ROCK-CHAMBER BATTERIES APPEAR IN THE PICTURE

"THE MASTERY OF THE SEAS"

BRITAIN'S NAVAL STRENGTH IS NEARLY TWICE THAT OF GERMANY, HER NEAREST RIVAL

THE "MOLTKE," A GERMAN DREADNAUGHT

OF ABOUT THE SAME CLASS AS THE FRENCH "COUBERT," AND ONE OF THE FASTEST BATTLESHIPS AFLOAT, BEING CAPABLE OF MAKING 28 KNOTS

THE BRITISH HOME FLEET STEAMING THROUGH THE SOLENT

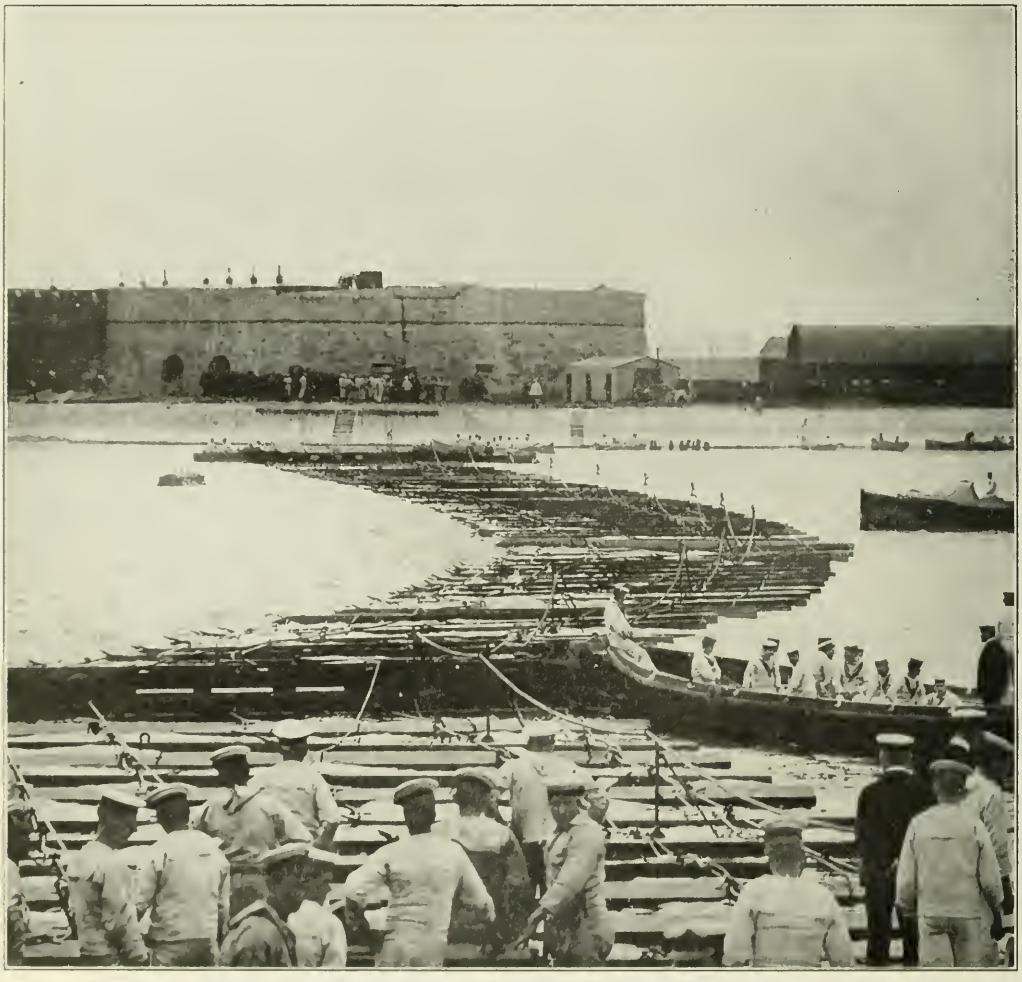
FROM LEFT TO RIGHT, THE "KING GEORGE," "THUNDERER," "MONARCH," AND "CONQUEROR"

ONE OF FRANCE'S BIG BATTLESHIPS

THE DREADNAUGHT "COUBERT," WHICH HAS A DISPLACEMENT OF 23,400 TONS AND CARRIES TWELVE 12-INCH GUNS AND TWENTY-TWO 5½-INCH GUNS

BRITISH COAST GUARD MANŒUVRES

TRAINING THE DEFENCE FORCE WHOSE DUTY IT IS TO REPEL INVASION



CLOSING A BRITISH PORT TO FOREIGN WARSHIPS

THESE HUGE BOOMS, MADE OF HEAVY TIMBERS ABOUT THIRTY FEET LONG, LASHED TOGETHER WITH STEEL CABLES, KEEP OUT DESTROYERS AND OTHER SMALL HOSTILE CRAFT

A NIGHT VIEW OF THE BRITISH HOME FLEET

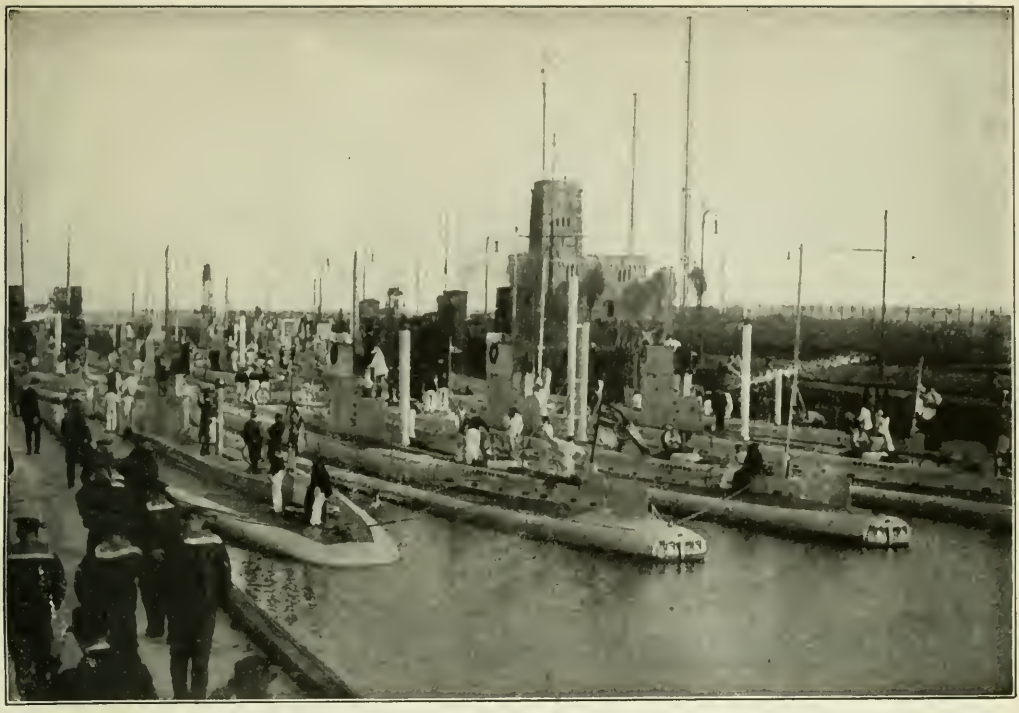
WHEN THE SHIPS ALL TURNED ON THEIR SEARCHLIGHTS DURING THE DEMONSTRATION AT SPITHEAD ON JULY 18, 1914

AN ARMORED TRAIN FOR THE DEFENCE OF THE ENGLISH COAST

PART OF THE SCHEME OF QUICK MOBILIZATION FOR THE PROTECTION OF THE EASTERN COAST

THE GERMAN FLEET WHOSE OFFICERS HAVE OFTEN TOASTED "THE DAY"

MEANING THE DAY WHEN IT SHOULD DISPUTE WITH GREAT BRITAIN FOR THE OVERLORDSHIP OF THE SEAS



POSSIBLY THE DECISIVE WEAPONS OF THE WAR

GERMAN SUBMARINES IN PORT AT WILHELMSHAVEN, THE GERMAN NAVAL BASE ON THE NORTH SEA. SOME EMINENT AUTHORITIES BELIEVE THAT SUBMARINES HAVE MADE BATTLESHIPS OBSOLETE

A FLOTILLA OF GERMAN DESTROYERS

IN PRACTICE MANŒUVRES IN A HEAVY SEA

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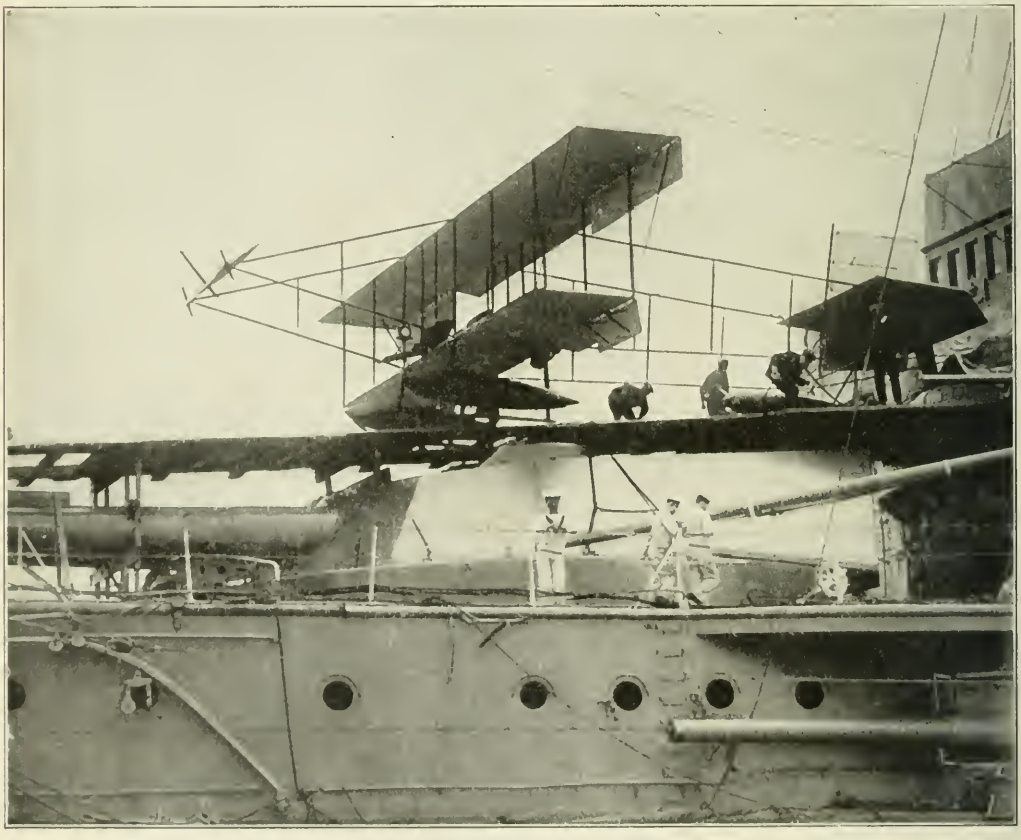
GERMANY'S FOES ON THE WATER

FRENCH AND ENGLISH SAILORS FRATERNIZING ON A FRENCH WARSHIP; AND A GROUP OF RUSSIAN SAILORS



AN AIRSHIP ON A SEA SHIP

A SCOUTING HYDRO-AEROPLANE AND LAUNCHING PLATFORM ON THE DECK OF A BRITISH WARSHIP

Two protected cruisers, the *D'Entrecasteaux* and *Guichen*, and 10 light cruisers of no fighting importance complete the list of French ships.

France is, however, strong, so far as numbers go, in destroyers, topedo boats, and submarines, having ready 84 of the first with displacements from 276 to 804 tons and speeds of 28 and 31 knots. She has 135 torpedo boats and 78 submarines, but many of these are of small size. One hundred and one of her torpedo boats are of but about 95 tons, and 20 of the submarines have a displacement of but 67 tons. They can hardly cut any figure except for purely local defence. Thirty-three of the submarines, however, have a surface displacement of 390 tons; 2 of 410; 6 of about 550; 2 of 785, and 7 of 830. The surface displacement is usually (roughly) about 70 per cent. of the submerged. These larger submarines carry from 6 to 8 torpedo tubes. Twelve now building of 520 (surface) tons displacement have Diesel motors of 2,000 horse-power. They are expected to have a surface speed of 17½ knots and a speed of 8 knots submerged. This last class will carry four small guns.

There are attached to the fleet 16 auxiliaries as mine layers, submarine destroyers, and aeroplane mother ships, of from 300 to 7,898 tons; half, however, are under 1,000 tons.

Russia, since her fateful struggle with Japan, has diligently labored to reëstablish her fleet, but she has not as yet made any great actual headway. But three of her old battleships were left from the wreck of the war, the *Tri Sviatitelia*, the *Panteleimon*, and *Czarevitch*.

The *Tri Sviatitelia*, of 1896 (in the Black Sea), has a displacement of 13,318 tons, 10,600 horse-power, a speed of 17 knots, and coal capacity of 1,000 tons. Her side armor is 16 inches and the big gun protection from 12 to 16 inches. She has 4 12-inch, 10 6-inch rapid fire, and 4 4.7-inch rapid fire guns and 2 torpedo tubes above water.

In the Black Sea also is the *Panteleimon* (1902), of 12,480 tons, has 10,600 horse-power, and 1,250 coal capacity, 17 knots speed, 7 to 9 inches of side armor, and 10 to 12 inches of protection for the big guns. She carries 4 12-inch, 16 6-inch rapid fire, 14 3-inch and 28 smaller guns. She has 5 torpedo tubes under water.

The *Czarevitch* (1902), of 12,912 tons, has 16,300 horse-power and 1,360 tons coal capacity; 18 knots speed, 10 inches side armor, and 8 to 11 inches of protection for the big guns. She carries 4 12-inch rapid fire, 12 6-inch rapid fire, 20 3-inch rapid fire, and 28 smaller guns. She has 2 torpedo tubes under water.

The *Slava* (1906), of 13,516 tons, has 16,000 horse-power and 1,250 tons coal capacity; 18 knots speed, 10 inches side armor, and 8 to 11 inches of protection for the big guns. Her armament is the same as that of the *Czarevitch*.

The *Ivan Zlatoust* (1910) and the *Elstafi* (1911) are both in the Black Sea.

They are 12,733 tons displacement, 10,600 horse-power, and 1,400 tons coal capacity. They have a speed of 16 knots, 7 to 9 inches of armor belt, and from 10 to 12 inches protection for the big guns. The armament consists of 4 12-inch, 4 8-inch, 12 6-inch rapid fire, 14 3-inch rapid fire, and 8 smaller guns. They have 5 torpedo tubes.

In 1911 the *Andreas Pervozvanni* and the *Imperator Pavel I* were launched.

They are of 17,200 tons displacement, 17,600 horse-power, and 3,000 tons coal capacity. They have a speed of 18 knots, 6 to 11 inches of side armor, and from 10 to 12 inches protection for the big guns. The armament consists of 4 12-inch, 14 8-inch, 20 4.7-inch rapid fire, and 14 smaller guns. They have 5 torpedo tubes.

There are altogether six armored cruisers, none of which are in the Black Sea.

The *Rossia* (1898), of 12,130 tons, has 18,000 horse-power and 2,500 tons coal capacity; 20 knots speed, 5 to 10 inches side armor, and 2 inches of protection for the big guns. She carries 4 8-inch, 22 6-inch rapid fire, 12 3-inch rapid fire, and 36 smaller guns. She has 5 torpedo tubes above water.

The *Gromoboi* (1901), of 12,336 tons, has 18,000 horse-power and 2,500 tons coal capacity; 20 knots speed, 6 inches side armor, and 2 to 6 inches of protection for the big guns. She carries 4 8-inch, 22 6-inch, 20 3-inch, and 31 smaller guns. She has 2 torpedo tubes above water and 2 below.

The *Rurik* (1907), of 15,170 tons, has 19,700 horse-power, and 2,000 tons coal capacity; 21 knots speed, 6 inches side armor, and 8 inches of protection for the big guns. She carries 4 10-inch, 8 8-inch, 20 4.7-inch rapid fire, and 18 smaller guns. She has 2 torpedo tubes under water.

The *Admiral Makharoff* was launched in 1907, and the *Pallada* and *Bayan* in 1911.

They are of 7,900 tons displacement, 16,500 horse-power, and 1,020 tons coal capacity. They have a speed of 21 knots, 4 to 8 inches of side armor, and from 3 to 7 inches protection for the big guns. The armament consists of 2 8-inch, 8 6-inch rapid fire, 20 3-inch rapid fire, and 7 smaller guns.

There are eight cruisers, of from 3,100 to 6,700 tons, of no fighting value however. These are the *Askold* (at Vladivostok), *Diana*, *Aurora*, *Kagul* (Black Sea), *Oleg*, *Pamyat Merkurya* (Black Sea), *Zemtchug* (Vladivostok), and *Almaz* (Black Sea.)

Russia has but 14 torpedo boats, all small and of little value. She is, however, fairly well off as to destroyers and submarines. She has 91 of the former, 34 of which exceed 500 tons in displacement, and ten are more than 1,000. About thirty of these destroyers are in the Black Sea and six at Vladivostok. Of the 55 submarines built or building, 37 are completed. Twenty-two, however, are under 135 tons surface displacement; twelve are of 360 tons or more, rising to 500.

Turning to the three Powers of the other alliance (though Italy at the moment of writing is not yet involved in the war) Germany

of course has easily the lead, with 36 battleships, 5 battle cruisers, 9 armored cruisers, and 43 cruisers, as her sea fleet. She also has, complete, 130 destroyers and 27 submarines. Her 16 torpedo boats are too small to be of value, her attention being given, very wisely, to the destroyer instead. The following is the list of her battle fleet:

The *Kaiser Friedrich III* (1898), *Kaiser Wilhelm II*, (1900), *Kaiser Wilhelm der Grosse* (1901), *Kaiser Karl der Grosser* (1901), *Kaiser Barbarossa* (1901) form the first type.

They are of 10,614 tons displacement, 13,000 horse-power, and 1,050 tons coal capacity. They have a speed of 18 knots, 12 inches of side armor, and 10 inches protection for the big guns. The armament consists of 4 9.4-inch, 14 5.9-inch rapid fire, 12 3.4-inch rapid fire, and 20 smaller guns. They have 5 torpedo tubes.

The second type includes the *Wittelsbach*, *Wettin*, *Zähringen*, launched in 1902, and the *Schwaben* and *Mecklenburg* of 1903.

They are of 11,643 tons displacement, 14,000 horse-power, and 1,450 tons coal capacity. They have a speed of 18 knots, 9 inches of side armor, and 10 inches protection for the big guns. The armament consists of 4 9.4-inch, 18 5.9-inch rapid fire, 12 3.4-inch rapid fire, and 20 smaller guns. They have 1 torpedo tube above water, and 5 under water.

In 1904 the *Braunschweig* was launched, the *Elsass*, *Hessen*, and *Preussen* in 1905, and the *Lothringen* in 1906.

They are of 12,997 tons displacement, 16,000 horse-power, and 1,800 tons coal capacity. They have a speed of 18 knots, 9.75 inches of side armor, and 11 inches protection for the big guns. The armament consists of 4 11-inch, 14 6.7-inch rapid fire, 12 3.4-inch rapid fire, and 20 smaller guns. They have 1 torpedo tube above water and 2 below.

In 1906, 1907, and 1908 Germany built the *Deutschland*, *Hannover*, *Pommern*, *Schlesien*, and *Schleswig-Holstein*.

They are of 12,997 tons displacement, 16,000 horse-power, and 1,800 tons coal capacity. They have a speed of 18 knots, 9.75 inches of side armor, and 11 inches protection for the big guns. The armament consists of 4 11-inch, 14 6.7-inch rapid fire, 22 3.4-inch rapid fire, and 8 smaller machine guns. They have 6 torpedo tubes.

In 1909 and 1910 Germany built two ships a year, the *Nassau* and *Westfälen* in 1909 and the *Rheinland* and *Posen* in 1910.

They are of 18,600 tons displacement, 20,000 horse-power, and 2,700 tons coal capacity. They have a speed of 19.5 knots, 9.75 inches of side armor, and 11 inches protection for the big guns. The armament consists of 12 11-inch, 12 5.9-inch rapid fire, 16 3.4-inch rapid fire, and 2 smaller guns. They have 6 torpedo tubes.

In 1911 three ships were launched, the *Ostfriesland*, the *Heligoland*, and the *Thuringen*. In 1912 there was but one, the *Oldenburg*.

They are of 22,440 tons displacement, 25,000 horse-power, and 3,000 tons coal capacity. They have a speed of 20.5 knots, 11 inches of side armor belt and 11 inches protection for the big guns. The armament consists of 12 12-inch, 14 5.9-inch rapid fire, 14 3.4-inch rapid fire, and 2 smaller guns. They have 6 torpedo tubes.

In 1913 there were five battleships: the *Friedrich der Grosse*, *Kaiser*, *Kaiserin*, *König Albert*, *Prinz Regent Luitpold*.

They are of 24,310 tons displacement, 28,000 horse-power (turbine), and 3,600 tons coal capacity. They have a speed of 21 knots, 13 inches of side armor, and 11 inches protection for the big guns. The armament consists of 10 12-inch, 14 5.9-inch rapid fire, 12 3.4-inch rapid fire, and 2 smaller guns. They have 5 torpedo tubes.

For 1914 there are the *Markgraf*, the *Grosser Kurfürst*, and the *König*.

They are of 26,575 tons displacement, 35,000 horse-power (turbine). They have a speed of 22 knots, 13 inches of side armor, and 13 inches protection for the big guns. The armament consists of 10 14-inch, 14 5.9-inch rapid fire, 12 3.4-inch rapid fire, and 2 smaller guns. They have 5 torpedo tubes.

The *Von der Tann* (1910), of 19,400 tons, has 43,000 horse-power (turbine), and 2,800 tons coal capacity; 25 knots speed, 4 to 6 inches side armor, and 8 inches of protection for the big guns. She carries 8 11-inch, 10 5.9-inch rapid fire, and 16 3.4-inch rapid fire guns. She has 4 torpedo tubes.

The *Moltke* (1911) and *Goeben* (1912), of 22,640 tons, have 52,000 horse-power (turbine), and 3,100 tons coal capacity; 25.5 knots speed, 4 to 8 inches side armor, and 8 inches of protection for the big guns. They carry 10 11-inch, 12 5.9-inch rapid fire, and 12 3.4-inch rapid fire guns. They have 4 torpedo tubes.

The *Seydlitz* (1913) is the same as the *Moltke*, except its displacement is 24,610 tons and its horse-power 63,000.

The *Derflinger* (1914) of 28,000 tons, has 100,000 horse-power (turbine), and 30 knots speed; 9¾ inches of side armor. Her armament is unknown except that she has 6 torpedo tubes.

The *Fürst Bismarck* (1900) of 10,570 tons, has 14,000 horse-power and 1,250 tons coal capacity, 19 knots speed, 4 to 8 inches side armor, and 8 inches of protection for the big guns. She carries 4 9.4-inch, 12 5.9-inch rapid fire, 10 3.4-inch rapid fire, and 18 smaller guns. She has 1 torpedo tube above water and 2 below.

Prinz Heinrich (1902) of 8,759 tons, has 15,000 horse-power, and 1,500 tons coal capacity; 20 knots speed, 2 to 4 inches side armor, and 4 to 6 inches of protection for the big guns. She carries 2 9.4-inch, 10 5.9-inch rapid fire, 10 3.4-inch rapid fire, and 14 smaller guns. She has 1 torpedo tube above water and 2 below.

The *Prinz Adalbert* (1903) and *Friedrich Karl* (1904) of 8,858 tons, have 18,500 horse-power, and 1,500 tons coal capacity; 21 knots speed, 3 to 4 inches side armor, and 4 to 6 inches of protec-

tion for the big guns. They carry 4 8.2-inch, 10 5.9-inch rapid fire, 10 3.4-inch rapid fire, and 14 smaller guns. They have 1 torpedo tube above water and 3 below.

The *Roon* and the *Yorck* (1905), of 9,350 tons have 19,000 horse-power, and 1,600 tons coal capacity; 21 knots speed, 3 to 4 inches side armor, and 4 to 6 inches of protection for the big guns. They carry 4 8.2-inch, 10 5.9-inch rapid fire, 16 3.4-inch rapid fire, and 14 smaller guns. They have 4 torpedo tubes.

The *Scharnhorst* (1907) and *Gneisenau* (1908) of 11,420 tons, have 26,000 horse-power, 22.5 knots speed, 4 to 6 inches side armor, and 6 to 6.75 inches of protection for the big guns. They carry 8 8.2-inch, 6 5.9-inch rapid fire, 20 3.4-inch rapid fire, and 18 smaller guns. They have 4 torpedo tubes.

The *Blücher* (1909), of 15,550 tons, has 32,000 horse-power, 24 knots speed, 4 to 6 inches side armor, and 6 inches of protection for the big guns. She carries 12 8.2-inch rapid fire, 8 5.9-inch rapid fire, 16 3.4-inch rapid fire. She has 4 torpedo tubes.

The *Magdeburg*, *Breslau*, *Strassburg*, and *Stralsund* were launched in 1912.

They are of 4,478 tons displacement, 22,300 to 25,000 horse-power (turbine), and 1,200 tons coal capacity. They have a speed of 26.75 knots, 4 inches of side armor, and 3 inches protection for the big guns. The armament consists of 12 4.1-inch rapid fire, and 2 machine guns. They have 2 torpedo tubes.

The *Karlsruhe* and *Rostock* were launched in 1913. They are of 4,820 tons displacement, 30,000 horse-power (turbine), and 1,300 tons coal capacity. They have a speed of 26.75 knots, 4 inches of side armor, and 3 inches protection for the big guns. The armament consists of 12 4.1-inch rapid fire, and 2 machine guns. They have 2 torpedo tubes.

Though these are reckoned by an English authority as armored cruisers, their armor, and particularly their gun protection, is too slight to bring them properly in the category. They are really scouts and of a high quality, as on their trials they were nearly a knot to two knots above their designed speed, the *Strassburg* showing 28.8. Some of the next class, the protected cruisers, 39 in number, have practically equal value as scouts, the *Kolberg*, *Mainz*, *Köln*, and *Augsberg*, of 4,281 tons, with turbines of 19,600 horse-power, showing on trial from 26.32 to 27.23 knots, and 28 of them from 21 to 24.

Germany is unusually strong in destroyers, of which she has 143. Forty-two of these are from 350 to 413 tons; 5 of 480; 13 from 530 to 560; 47 of about 650; 36 of 840 and 900 tons. Along with these are 27 submarines, 16 of which have a surface speed of 18 knots and 12 under water. What is known as the type U21, one of which passed into service last year, has a length of 213 feet 8 inches, and 20 feet beam.

Austria, Germany's supporter, has nine battleships ready, all which have been completed since 1905, as follows:

In 1906 the *Erzherzog Karl* and *Erzherzog Friedrich* were launched, and in 1907 the *Erzherzog Ferdinand Max*.

They are of 10,433 tons displacement, 14,000 horse-power, and 1,315 tons coal capacity. They have a speed of 19.25 knots, 6 to 8.25 inches of side armor, and 9.5-inches protection for the big guns. The armament consists of 4 9.4-inch, 12 7.6-inch rapid fire, 14 3-inch rapid fire, and 16 smaller guns. They have 2 torpedo tubes.

In 1910 came the *Erzherzog Franz Ferdinand*, and in 1911 the *Radetzky* and *Zrinyi*.

They are of 14,268 tons displacement, 20,000 horse-power, and 1,200 tons coal capacity. They have a speed of 20 knots, 9 inches of side armor, and 9.75 inches protection for the big guns. The armament consists of 4 12-inch, 8 9-inch, 20 3.9-inch rapid fire, 6 smaller rapid fire, and 2 machine guns. They have 3 torpedo tubes.

In 1912, the *Viribus Unitis* was launched, in 1913 the *Teggethoff* and the *Prinz Eugen*.

They are of 20,000 tons displacement, 25,000 horse-power, and 2,500 tons coal capacity. They have a speed of 20 knots, 11 inches of side armor, and 11 inches protection for the big guns. The armament consists of 12 12-inch, 12 5.9-inch rapid fire, 18 14-pounder rapid fire, and 4 smaller guns. They have 4 torpedo tubes.

The *Kaiserin Maria Theresia* (1895), of 5,187 tons, has 9,000 horse-power and 740 tons coal capacity; 19 knots speed, 4 inches side armor, and 4 inches of protection for the big guns. She carries 2 7.6-inch rapid fire, 8 6-inch rapid fire, and 22 smaller guns. She has 4 torpedo tubes above water.

The *Kaiser Karl VI* (1900), of 6,151 tons, has 12,000 horse-power and 820 tons coal capacity; 20 knots speed, 8.5 inches side armor, and 8 inches of protection for the big guns. She carries 2 9.4-inch, 8 6-inch rapid fire, and 28 smaller guns. She has 2 torpedo tubes above water.

The *St. Georg* (1906), of 7,185 tons, has 12,300 horse-power and 1,000 tons coal capacity; 21 knots speed, 6.5 inches side armor, and 5 to 8 inches of protection for the big guns. She carries 2 9.4-inch, 5 7.6-inch rapid fire, 4 6-inch rapid fire, and 17 smaller guns. She has 2 torpedo tubes.

The ten light cruisers of Austria, varying in size from 1,506 tons to 3,966, call for no particular remark excepting the two last completed: the *Admiral Spaun*, of 3,500 tons, 20,000 horse-power, and 27 knots, and the *Saida*, of the same tonnage, but of 25,000 horse-power and (probably) 28 knots. Both have turbine engines. Their chief value in war could be only as scouts.

There are 18 destroyers; 12 of 384 tons with 28½ knots speed, and 6 of 800 tons and 32½ knots. These latter carry 4 12-pounders and two 21-inch torpedo tubes. They have oil fuel.

Of the 63 torpedo boats, 33 are of 250 tons and 24 of 197 tons, and are thus capable craft of their kind. The rôle of such can only be, as a rule, that of inshore work.

The six submarines are of but moderate size, ranging from 216 to 235 tons at the surface.

THE KAISER AND THE "MAILED FIST"

BLOOD AND IRON — MANILA BAY — THE KRUGER TELEGRAM — BOSNIA AND HERZEGOVINA — AGADIR — AND THEN THE DELUGE

THERE is an explanation of the "blood and iron" policy of Germany, of the "mailed fist" of the Kaiser, of what Mr. H. D. Wells calls "that tramping, drilling foolery in the heart of Europe that has arrested civilization and darkened the hopes of mankind for forty years — German imperialism and German militarism." The explanation is in the history of the rise of Prussia. Bismarck lifted Prussia from a second rate member of the German Confederation, which was dominated by Austria, to a first place among the German states and then formed around it a new nation — Germany, and made that nation one of the great powers of the world. Bismarck believed in autocracy, he believed in "blood and iron," in the "mailed fist." He achieved his success by war, deliberately planned, prepared for and efficiently carried out.

Look closely at the lessons of war and diplomacy which Emperor William inherits from his grandfather and the Iron Chancellor.

In 1862, Emperor William I, the grandfather of the present ruler, was struggling to get the Prussian Diet to grant him money to double the size of his army. He had been unsuccessful in this effort. He was about to give it up when as a final experiment he consented to invite into his ministry the then young reactionary leader, Otto von Bismarck. Bismarck's political ideas centred around the belief in the Prussian monarchy. It had been the Prussian kings, not the Prussian people that had made Prussia great. Bismarck believed in the king and disbelieved in the people. He hated democracy. He also believed in war as a means of national progress. In the most famous speech of his life in 1863 he announced "Not by speeches and majority votes are the great questions of the day decided — but by 'blood and iron.'" These are the views of the man from whom the present Emperor learned his statecraft.

In 1863, Prussia and Austria went to war, a war chiefly of Bismarck's contriving, against Denmark and took the duchy of Lauenburg and the provinces of Schleswig and Holstein, in which the Kiel Canal and the German naval base is now. Austria was to administer Holstein and Prussia, Schleswig. Prussia paid Austria $1,800,000 for the duchy of Lauenburg. Bismarck approved this whole arrangement because he thought it would lead to war with Austria, and it was a part of his "blood and iron" policy that a German nation under Prussian domination could come only after a war with Austria. There was not room in a German Confederation for both Austria and Prussia — "one or the other must bend." Within a year after the division of Schleswig-Holstein, Bismarck had obtained a promise from Napoleon III to remain neutral if Prussia attacked Austria. He also made a treaty with Italy providing that Italy would join Prussia in a war on Austria if Prussia began the war within three months for the sake of reforms in the German Confederation. The enemy was thus isolated, and Prussia was prepared to use both "blood and iron." Bismarck immediately and quite unexpectedly introduced into the Diet of Frankfort, the governing body of the German Confederation, a new plan for the federation of German states. With this as a background, to satisfy the Italian treaty, Bismarck picked a quarrel with Austria over its administration of Holstein, declared the old confederation dissolved, attacked Austria, and invited the other German states to do likewise. None of the other important states sided with Prussia. Four of them stood with Austria. But Prussia was prepared, trained and ready for war. In seven weeks Austria was defeated and soon after all Germany was at the mercy of the Prussians.

Prussia now annexed the kingdom of Hanover, four duchies and the free city of Frankfort, bringing under the Prussian king practically all the peoples and land along the north coast from the Russian border to the border of Holland. There was no thought of having the people of these states vote on the question of annexation as had been done in Italy. They were annexed by the right of conquest on decrees issued from Berlin, where one king who ruled by "divine right" deposed two or three others whose thrones were similarly bolstered up. Thus increased, Prussia became the leader in a new German Confederation which included all but four German states and from which Austria was excluded.

The "blood and iron" policy had triumphed. Prussia had humbled Austria and become the dominant power in Germany. Yet Germany was not united. The four southern states still were outside the Confederation. So there was need for more "blood and iron." Bismarck believed a war between France and Prussia inevitable and (Hazen's "Europe Since 1815," pp. 289–290) "in his opinion it was desirable as the only way of completing the unification, since Napoleon III would never willingly consent to the extension of the Confederation to include the South German states. All that he desired was that it should come at

precisely the right moment, when Prussia was entirely ready, and that it should come by act of France, so that Prussia could pose before Europe as merely defending herself against a wanton aggressor. In his "Reminiscences" he avows that he entertained his belief as early as 1866. 'That a war with France would succeed the war with Austria lay in the logic of history;' and again, 'I did not doubt that a Franco-German war must take place before the construction of a United Germany could be realized.' The unification of Germany being his supreme aim, he was bound by logic and ambition to see that that war occurred."

He explains frankly in his "Reminiscences" how he brought the war about. There was a delicate diplomatic situation between Prussia and France in 1870 which arose over the succession to the Spanish throne. The King of Prussia was at Ems. The French ambassador went to see him and made certain demands. The Emperor telegraphed these to Bismarck saying that he could use his discretion about publishing them. Von Moltke and Roon, the great Prussian soldiers, were with Bismarck when the telegram came. They were in a dejected mood for they saw no chance of war. Then, says Bismarck, "I reduced the telegram by striking out words but without adding or altering. . . . After I read out the concentrated edition to my two guests Moltke remarked: 'Now it has a different ring; it sounded before like a parley; now it is like a flourish in answer to a challenge.' I went on to explain: 'If in execution of his Majesty's order I at once communicate this text, which contains no alteration in or addition to the telegram, not only to the newspapers, but also by telegraph to all our embassies, it will be known in Paris before midnight, and not only on account of its contents, but also on account of the manner of its distribution, will have the effect of a red rag upon the Gallic bull. Fight we must if we do not want to act the part of the vanquished without a battle. Success, however, essentially depends upon the impression which the origination of the war makes upon us and others; it is important that we should be the party attacked, and this Gallic overweening and touchiness will make us if we announce in the face of Europe, so far as we can without the speaking tube of the Reichstag, that we fearlessly met the public threats of France.' He adds that 'this explanation brought about in the two generals a revulsion to a more joyous mood, the liveliness of which surprised me.'"

The trick had its desired effect. France declared war against Prussia. The ever ready "blood and iron" were loosed again.

Everything was as Bismarck wished. The South German states joined Prussia. The French were defeated quickly and completely. In less than six months, after the opening gun was fired, on January 18, 1871, King William the First was crowned Emperor of a united Germany, the four southern states had joined the Empire, and Alsace and Lorraine had been annexed to Prussia.

In less than ten years the great Chancellor had turned a second rate German state into an Empire, a first class power among the nations of the world. He did it by "blood and iron," by unscrupulous diplomacy backed by the best trained army in Europe, and by unhesitatingly throwing the country into war where the army could be used.

The present Emperor inherited German militarism and German Imperialism, a belief in the divine right of kings and the strength of the German Army. The lessons of the history of his country and of his family are plain. Germany was built by "blood and iron."

On his accession to the throne, in the speech he made to the army and navy three days before his speech to the people, he reiterated Bismarck's doctrine in these words:

"The soldier and the army, not parliamentary majorities, have welded together the German Empire. My confidence is placed on the army."

At the centenary of the firm of Krupp, at Essen, the Emperor said:

"The history of this firm is a piece of Prussian and German history. Krupp guns have been with the Prussian lines and have thundered on the battlefields which made ready the way to German unity and won it at last."

William II broke with the great Chancellor, not because he believed more in the people than Bismarck, but because he believed so much in the rule by divine right that he was unwilling even to be overshadowed by the Chancellor who had made the Empire.

Bismarck's use of "blood and iron" made Germany the strongest nation on the European continent. But he recognized very clearly that "blood and iron" was a policy to be used with great care. Before every one of the three wars he precipitated he was careful to do two things: (1) to isolate the country he was going to attack by arrangements that would keep other nations from interfering with his war and (2), be certain that his army was better prepared than the enemy.

This was the game that Bismarck played by which he achieved the great ambition of his life — the unification of Germany.

Emperor William has an even larger vision. "Our future is on the water," he announced. "The more the Germans go upon the water the better it will be for us." This announcement was in 1901. But the date of the first naval programme was 1893, three years after Bismarck's retirement. The Kiel Canal was opened in 1895. To further his imperialism, the Emperor has used the "mailed fist," the threat of his army rather than the army itself. It is interesting to see what the Kaiser's imperialism, backed by the "mailed fist," has achieved, and its influence in the present crisis.

PRUSSIA UP TO 1863

THE KINGDOM WHEN BISMARCK BECAME CHANCELLOR TO KING WILLIAM I — A DIVIDED STATE, A MEMBER OF THE GERMAN CONFEDERATION WHICH WAS DOMINATED BY AUSTRIA UNDER FRANCIS JOSEPH II THE PRESENT RULER

PRUSSIA AT THE END OF 1864

THE FIRST "BLOOD AND IRON" WAR IN WHICH AUSTRIA AND PRUSSIA TOOK THE DANISH PROVINCE OF HOLSTEIN AND PUT IT UNDER AUSTRIAN ADMINISTRATION AND THE PROVINCE OF SCHLESWIG WHICH WAS PUT UNDER PRUSSIAN ADMINISTRATION

In 1895, the year in which the Kiel Canal was opened, Germany joined France and Russia in a demand upon Japan that it give up Port Arthur, which it had just taken from the Chinese. The interest of Russia and therefore of its ally, France, was plain enough. Russia wanted the port itself. Germany's interference seemed entirely uncalled for and provoked much resentment in Japan. This combination against Japan threw that country upon England and resulted in the Anglo-Japanese alliance which now gives the Japanese fleet an excuse to attack the German port of Kiao-chau.

In 1896, the day after the Jameson raiders were captured by the Boers, Emperor William congratulated President Kruger that it had been done "without appealing to the help of the friendly powers." This direct slap at England was met by the formation of a flying squadron and by calling attention to the London Convention reserving supervision of the foreign relations of the Transvaal to England. Later the Emperor snubbed Kruger and was very friendly to England, but the incident served to set English public opinion against the Kaiser almost until the rise of the German Navy gave England a renewed feeling of coolness.

In 1898, after Admiral Dewey had defeated the Spanish Fleet in Manila, Admiral Diederich with a German fleet entered the harbor and sounded the English Admiral, who arrived about the same time, as to what his attitude would be were Germany to try to force the American fleet to give up Manila. The answer was sufficient to prevent any move on the part of the German admiral but not to prevent a feeling against the German Government.

In 1905, the Emperor in person landed in Morocco, where France felt it had particular claims. As a result of this visit the Sultan refused to accept the French programme and asked for a conference with representatives of the leading powers to advise him. M. Delcassé, the French Minister of Foreign Affairs, protested that France would attend to the matter alone. The German Chancellor, Von Bülow, used threatening language. France gave up, M. Delcassé resigned. The "mailed fist" had been successful and another country was provoked against Germany.

In 1908 Austria took over Bosnia and Herzegovina, England and Russia protested that this was against the stipulations of the treaty of Berlin. Russia intimated that the annexation of Slav provinces might lead to its interference. The German Emperor responded with a threat of instant mobilization. Russia had not recovered from its Manchurian campaigns, and the Czar had to back down. Again the "mailed fist" was successful and another nation was given a grievance against Germany.

In 1909 an agreement was made with France concerning Morocco. All was seemingly satisfactory when on the first of July, 1911, the First Secretary of the German Embassy called upon the French Foreign Minister to inform him of Germany's decision to send a warship to Agadir. The cruiser *Panther* served as the "mailed fist" this time. She failed of her mission. France was not intimidated as before, but the incident was fresh fuel to the French feeling against Germany.

In July, 1900, at the launching of the *Wittelsbach*, William II declared that the "ocean was indispensable to German greatness":

AFTER THE PRUSSIAN-AUSTRIAN WAR

BISMARCK'S SECOND "BLOOD AND IRON" VENTURE WAS TO PROVOKE A WAR WITH AUSTRIA, DEFEAT THAT COUNTRY AT SADOWA IN 1866, JOIN THE TWO PARTS OF THE PRUSSIAN KINGDOM, AND ENLARGE IT BY TERRITORIAL CONQUESTS

AFTER THE FRANCO-PRUSSIAN WAR

BISMARCK'S THIRD EXPERIMENT IN "BLOOD AND IRON" WAS TO ENGINEER A WAR WITH FRANCE, DEFEAT ITS ARMIES, TAKE ALSACE AND LORRAINE AND CREATE A NEW GERMAN EMPIRE WITH PRUSSIA AT ITS HEAD

"The ocean teaches us that on its waves and on its most distant shores no great decision can any longer be taken without Germany and *without the German Emperor*. I do not think that it was in order to allow themselves to be excluded from big foreign affairs that thirty years ago our people, *led by their princes*, conquered and shed their blood. Were the German people to let themselves be treated thus, it would be, and forever, the end of their world-power; and I do not mean that that shall ever cease. To employ, in order to prevent it, the suitable means, if need be."

The Emperor has carried out his policies. Germany has not been excluded from big foreign affairs. No great decision has been taken without Germany and the German Emperor. But the net result of the activity has been to leave Germany nearly isolated when the great war came — in the very predicament in which Bismarck used to manœuvre the enemies of Germany before provoking war. Moreover, he has forgotten Bismarck's maxim that "success essentially depends upon the impression which the origination of the war makes upon us and others; it is important that we should be the party attacked."

Whatever the provocation in this war, Germany actually declared war first on Russia, France, and England.

There is another policy or rather belief which Emperor William inherits. It is exemplified in the speech he made as late as 1910, in which he said:

"Considering myself as the instrument of the Lord, without heeding the views and opinions of the day, I go my way."

Against the spread of democratic principles the Kaiser stands as the first defence. Behind him are the Emperor of Austria and the Czar. But the German Emperor, the champion of Teutonism against the Slav, is the defender of autocracy of which the Czar is the best exponent. The German Emperor's insistence of his divine right has lost Germany the sympathy of the democratic countries of the world.

At the Oxford Commencement this year the German Ambassador to England was given an honorary degree, and in giving it the college authorities dwelt upon the fact that the strained situation between England and Germany that was acute in 1911 had been entirely relieved. A few days later six English battleships were in the friendly harbor of Kiel during the great Kiel Week. Officers of both nations danced gaily on the decks of the British dreadnaught *Ajax*.

Five weeks later the *Ajax* with a great fleet was in the North Sea "to capture or destroy" their hosts of but a short time before.

The German Emperor cut short his yearly visit to Norway. President Poincaré hurried back from Russia to France, Earl Kitchener was stopped at Calais on his way to Egypt and brought back to organize England for war. Germany's threat prevented Russia from disturbing Austria's Balkan policies once before. The "mailed fist" had worked against almost every country in Europe and yet no war had occurred. Then suddenly it fails. Germany's threat of mobilization is met by mobilization elsewhere, and the Emperor finds himself isolated, fighting half the world and with little sympathy from the other half. With him is only Austria, which precipitated the struggle and to whose assistance he went.

MEN WHO CONTROL THE DESTINY OF EUROPE

SIR EDWARD GREY

SIR EDWARD GREY has been at the head of the British foreign office for nine years. He has been in the British public service 30 years, in Parliament, as under Secretary of State under Gladstone, and in his present position. The striking fact about him — that which Englishmen of both parties place in his hands the fate of the nation with implicit confidence is the honesty and frankness of his every public action.

He is not a diplomat in the old sense of the word. He has no tricks or wiles. He is entirely straightforward. With all the cards on the table, he conducts the foreign affairs of the British Empire in much the same way as other business is conducted.

He has had the least possible hand in the intrigues, compacts, plots, plans, and stratagems of the European diplomatic arena. As far as her situation would permit he endeavored to realize for England the venerable American policy of a friendship for all, entangling alliances with none! The other day in the House of Commons he made it clear that England was under no agreement or contract to fight for France or Russia.

His natural disposition to avoid the complications of the continental game of empire, may be clearly seen in a speech he made in January, 1912.

"Let me put you on your guard against people who, as I think, are very bad advisers with regard to foreign policy. There is a certain section, I have no doubt, in the Liberal Party, which think we do not interfere nearly enough, especially in certain parts of the world, in Asia. Mongolia, I think, was the last selected as a part in which we should take an active interest. Believe me if you are going to pursue a foreign policy of that kind, and this country is going to interfere actively in Central Asian questions far beyond our own Indian frontier, you are going to incur, not only the very heavy naval expenditure which we have already, but a vastly increased military expenditure as well; and the people who press upon me a different foreign policy to that which is now being pursued are, it seems to me, people who are really advocating as a foreign policy the maximum of interference in the affairs of the world at large and the minimum of friendship; because the policy, if it were carried out, would soon leave us without a friend in Europe."

The policy of not meddling with other nations and provoking their hostility seems well repaid when in a crisis like this the long expected German-English war comes and finds England with many allies and Germany almost isolated.

COUNT BERCHTOLD

COUNT LEOPOLD BERCHTOLD, whose aggressive policy toward Servia precipitated the war of the world, is the second Austrian statesman with a foreign policy more active than playing "a brilliant second" to Germany. In 1908 Count d'Aehrenthal, who, as Ambassador to Russia, had feared the revolutionists, risked starting a European war by annexing Bosnia and Herzegovina to Austria. Berchtold took the same risk this year in undertaking to discipline Servia. But this time Russia had recovered from the Japanese War!

Count Berchtold is an intellectual and courteous diplomat, of unmilitary training.

He succeeded d'Aehrenthal not only at the Foreign Office in Vienna but previously at the Austro-Hungarian Embassy at St. Petersburg. He was know as a protégé and to some extent a disciple of d'Aehrenthal. He was a young Ambassador in St. Petersburg when he was sent there in 1907 by d'Aehrenthal — apparently under forty — of a tall and exceptionally graceful figure, long limbed but not athletic. A healthy pallor lent distinction to regular features, and scant, soft, brown hair of an indefinite tone added to the height of a broad brow and gave an intellectual cast of countenance. An aristocrat to the finger tips, at home, like his predecessor, rather in the drawing room and the cabinet than in the field. Berchtold has shown the same calculating daring — intellectual rather than physical.

It is not to be supposed that Austria's ultimatum to Servia on July 26, 1914, was made with any less knowledge of consequences by Berchtold than the annexation of Bosnia-Herzegovina by d'Aehrenthal in 1908. If any foreign diplomat to-day knows the aims of Russian diplomacy, it is Berchtold. When, in February, 1913, Prince Gottfried Hohenlohe reached Petersburg, the bearer of a letter from Francis Joseph to the Czar, with powers to negotiate if necessary the menacing situation in the Balkans, Berchtold showed an appreciation of the possibilities of friendly diplomacy, for Hohenlohe is not only intimate with the most powerful of the Grand Dukes but is also in favor with the Emperor. The upshot of Hohenlohe's mission must ultimately have been ineffective; but Austria's aims at the Sanjak

of Novibazar and an outlet on the Ægean are established as well known. Her foreign policy to-day is the consistent development of the aggressive turn given to it by d'Aehrenthal. It is now directed by a man of supple and intellectual force rather than physical vigor and from the plane of an aristocrat who still regards national development as a thing entirely dynastic and aristocratic. The preservation and power of the Austrian Empire is the goal, and at the same time the stake.

The price of success cannot be too high.

VON BETHMANN-HOLLWEG

A PHILOSOPHER and academician, Theobald Von Bethmann-Hollweg, by a sudden upheaval of destiny, inherits of the "blood and iron" tradition of Bismarck on the outbreak of world-wide war. He is tall and gaunt; a quiet, yet compelling presence. When he speaks it is straightforwardly, simply. His sincerity is rather more than German, his thoroughness entirely German. Gravity is the essence of him. But, commanding and persuading as is his physical presence, Germany has not hitherto found him a dominating figure.

Von Bethmann-Hollweg comes from an old Prussian merchant family ennobled in 1840. He is 57 years old and has been Imperial Chancellor since 1909. He and the Kaiser were students together at the University of Bonn, and the Kaiser's confidence in him and friendship for him date back to those early years. Nevertheless he has risen to the highest appointive office in the Empire, not by favoritism, but through the stereotyped grades of German officialdom, each step in his career patiently gained and creditably administrated.

Bethmann-Hollweg studied law at Göttingen, Strassburg and Berlin, from 1875 to 1879, and after following the legal profession for the next six years, he was appointed judge at Potsdam. Here, again, he enjoyed the intimacy of the royal heir.

His appointment to the chancellorship in 1908 came when the Empire was thought to be facing a crisis. Certain elements in the Reichstag were trying to make the chancellor a responsible officer; a financial bill, which committed the Empire to the expenditure of $100,000,000, stood in danger of being defeated. Von Bülow had lost the confidence of the Reichstag through his cynicism, and that of the Kaiser through hinting to the latter to be more careful about public utterances. Everyone wondered who the "next man" would be.

The appointment of Bethmann-Hollweg came as a great surprise. Yet it has been fairly justified, for although the Chancellor is a "Kaiserman" who sinks his personality into the shadow of his Emperor, he has conducted his office with credit.

HERBERT HENRY ASQUITH

THE foremost diplomatic figure in the great European War, from the English speaking viewpoint, is the Right Honorable Herbert Henry Asquith, Prime Minister of England, and First Lord of the Treasury — a Yorkshireman of Puritan stock, who, without family, influences, or fortune, has worked his way up from the bottom until he stands to-day in the powerful position held by Gladstone — a position which is one of the directing forces behind modern civilization.

Born at Moreley, Yorkshire, on September 12, 1852, he was educated at the City of London School, and at Balliol College, Oxford. He became barrister at 24 years of age at Lincoln's Inn, and as early as 1890 became a Queen's Counsellor. His ambition, however, lay rather in the direction of the House of Commons. He was elected member of Parliament for East Fife in 1886. It was four years later that he moved the vote of want of confidence which overthrew Lord Salisbury's government, and was made Home Secretary in the new Liberal Ministry.

It was Asquith who coined the phrase as to the Government's "plowing the sand" in their endeavor to pass Liberal legislation with a hostile House of Lords. During his three years of office he confirmed the high opinion formed of his ability. The Liberal defeat of 1895 left him out of office for eleven years.

During the years of Unionist ascendancy, Mr. Asquith divided his energies between his legal work and politics, and became identified with Lord Rosebery's attitude toward Irish Home Rule. When Mr. Balfour resigned in 1905, and Sir Henry Campbell Bannerman became Prime Minister, Mr. Asquith was appointed Chancellor of the Exchequer. He pledged himself to inaugurate a system of old-age pensions, and his advocacy of other social reforms greatly increased his popularity. On the resignation of Sir Henry Campbell Bannerman in 1908 the King appointed him Prime Minister.

PRESIDENT POINCARÉ OF FRANCE

PRESIDENT POINCARÉ, of France, is the great champion of electoral reform at home, and of the Triple Entente abroad, His first executive act as President of the Republic was to appoint as ambassador to Russia Mr. Delcassé, father of the Triple Entente.

France is now enjoying the rewards of one of these policies of Delcassé and Poincaré. She has Russia and England as allies in the long-expected conflict with Germany.

The President of France is a bearded pale-faced, rather short and stout man who impresses friend and foe alike with his mental ability. He has the versatility of his race. According to the painter, Degas, he "is the only politician who knows anything about art."

He is a patron of the turf, an author of widely read books which won him a place in the French Academy beside his famed artist cousin, Henri. As a lawyer he stood first at the Bar, and as an educator he has been Minister of Public Instruction. While Minister of Finance, he put on the statutes laws regulating and equalizing the taxation of millions. He has been counsel of the Beaux Arts, counsel of the National Museum, president of the Philotechnique Française, and president of the Society of Friends of the University of Paris.

He is still in the prime of life and undiminished vigor, for he is only 54 years old. In this crisis it is fortunate for France that she has in the Presidency one of the few strong characters who have held that office since the last war with Germany brought about the Third Republic.

BARON CONRAD VON HÖTZENDORF

THE direction of the armies of Austria-Hungary lies in the hands of Baron Conrad Von Hötzendorf. He has the confidence of the aged Emperor, and rank and file of the army, and is, besides possessing unique qualifications and capacity for army organization, the Kitchener of Austria-Hungary.

Political affairs in Austria brought him to the front in 1906, when he was made chief of the general staff, receiving the rank of general in 1908. Three years later he was relieved from this position to become army inspector in 1911. But in 1912 he was recalled to the post of chief of staff.

GRAND ADMIRAL VÖN TIRPITZ

ADMIRAL VON TIRPITZ made the German Navy. Only war will tell whether he has made it as effective as several generations of Englishmen have made the British Navy, but there is a great deal of sound opinion to the effect that Von Tirpitz's work is the equal of any Navy in the world.

His activities during the fall manœuvres of 1894 won for him the recognition of the Kaiser, who mentioned that fact in the royal message sent to the commander, Freiherr von der Goltz. Von Tirpitz's reward was promotion. He was made Chief of Staff and was given charge at Kiel. The plans for the manœuvres of the next year were drawn up by him and the Kaiser did not miss an opportunity after that to show his appreciation.

After he had become Secretary of State in 1898, von Tirpitz began a campaign the like of which Germany had never before known. His intention was to make the naval service as strong as the military arm. A naval base was established at Kiel, the methods of the Engineering Corps were modernized, and a new set of regulations was arranged for the education of the new generation of officers. Supplementary bills were passed, through his efforts, in 1900 and 1906. He was then made a noble with a hereditary title.

This old gray German admiral joined his Government's service as a naval cadet forty years ago. German sea power consisted of a collection of obsolete frigates, euphemistically called the Prussian Navy. He now directs the second largest navy in the world. One would think that, having devoted his life to a bitter contest in naval construction with Great Britain, he would be a strong Anglophobe. Almost the reverse is the case. All his children have been educated in England, and he is a sincere admirer of the best things in British character and achievement. Perhaps more than any other one man he is responsible for the almost frantic competitive building programme of European navies during the last generation, clinging tenaciously to his "two to three" German standard against Great Britain's insistent "two to one."

KING ALBERT OF BELGIUM

THE figure of the young King of Belgium — a man 39 years of age — stands against a picturesque background in the European conflict. His voice was first heard by the world-at-large when, in the heroic defence of his little kingdom, he called upon his soldiers in a spirited proclamation to defend their country to the last drop of blood and to stand shoulder to shoulder against a common foe.

The full name of the Belgian King is Albert-Leopold-Clement-Marie-Menard. He was born in Brunswick on April 8, 1875, and is the sole surviving son of the Count of Flanders, who died in 1905. He is of a studious disposition, and bears a striking resemblance, to his uncle, King Leopold II. He was married in 1900 to Elizabeth, Duchess of Bavaria, third daughter of Duke Charles of Bavaria, and was crowned King of Belgium in 1909.

He knows America well, having spent almost an entire year in 1898 in this country while still heir-presumptive. In 1910 he dispatched to Washington Baron de Beaulieu, one of the distinguished members of the Belgian diplomatic service, for the purpose of officially notifying the President of his accession to the throne, being the first European sovereign to send a special ambassador to the United States to formally announce his accession.

He resembles his late uncle in the attentiveness with which he reads the leading newspapers of Europe. Every morning the London *Times*, the Paris *Temps*, the Berlin *Kreuz Zeitung*, and the Vienna *Neue Freie Presse* are placed upon his study table. He likewise reads the scientific press, particularly those papers which pay attention to electrical subjects. His hobby is engineering. Some months before he ascended the throne he ran a locomotive from the Belgian Capital to the Frontier. He is now striving to make himself an authority on wireless telegraphy, and has had a complete radio-telegraphic system fitted up at his palace at Læken for experiments. He is a hard working, modern constitutional monarch.

ARCHDUKE FRANCIS-FERDINAND

THE whole world was startled when the news was spread broadcast that the heir to the Hapsburg's imperial throne, together with his morganatic wife, the Duchess of Hohenberg, had been assassinated at Sarajevo. When the news of the assassination of the Archduke and the Duchess was broken to the aged Emperor, Francis Joseph, he cried: "Horrible, horrible! No sorrow is spared me."

For the last twenty years Francis Ferdinand had been the dark horse of Europe. Perhaps his divergence in many ways from popular ideas of what an Emperor ought to be may be accounted for by the fact that up to the time he was twenty-six years old he never expected to be within reach of the crown, as he was not first in the line of succession.

He was born in 1863. His mother, Maria Annunziata, was a daughter of Ferdinand II of Naples. Through the tragic death of Crown Prince Rudolph in 1889, Archduke Charles Ludwig (the Emperor's brother and Francis Ferdinand's father), was made heir to the throne. Charles Ludwig, however, on account of age, asked to be excused from the succession, thus leaving the way to the throne clear to his son.

When Ferdinand calmly announced in 1893 that he was not in love with any of the Archduchesses at the Imperial Court but with one of their companions, an obscure Bohemian countess, the Emperor was dumfounded, and the countess was promptly discharged, and the Archduke set out on a trip around the world. He attempted to return through the United States without disclosing his identity, but was recognized at Chicago and New York, where he received much attention. Eventually the Emperor gave his consent to a morganatic marriage with the Countess (Sophie Chotek) but the Archduke was compelled to take a solemn oath that he never would attempt to place his wife or her children on the throne. The Countess, on her marriage, took rank, as Fuerstin of Hohenberg, and in 1905 was given the rank of Duchess.

Francis Ferdinand had been brought up in the army and had no particular training for statecraft, but at the time of his death he wielded a great influence in the affairs of State. In the crisis attending the annexation of Bosnia and Herzegovina in 1908, and in the Balkan wars of 1912–1913, he was one of the leaders in the group of men who pulled the dual monarchy out of the fire in one of the most remarkable triumphs of modern diplomacy.

Ferdinand was made a general and reorganized the Austrian general staff with great success in 1891. He took up locomotive engineering as a hobby, and was recognized as one of the best shots in the country. The walls of his castle at Konopischt were hung with the antlers of 2,000 stags and chamois, as well as with the heads of tigers killed in India, the tusks of elephants slain in Ceylon, and the pelts of bears shot in the Rocky Mountains.

HORATIO HERBERT KITCHENER

THE eyes of all England are focused at present on Earl Kitchener, the "organizer of victory" who stands to-day in supreme command of the destinies of the British land forces, both as Secretary of War and as commander-in-chief of the Army.

Earl Kitchener is a tall man, 64 years old, with heavy gray moustache and wavy gray hair, which he wears parted in the middle. He has a sunburnt, determined-looking face, large steel-blue eyes, and square jaws.

Until the events of the moment, Kitchener has never commanded against the organized army of any Power of the first rank, but he is probably the best known military leader in Europe. He was born in County Kerry, in 1850, of English parentage. He was educated at the Royal Military Academy at Woolwich and entered the British army when twenty-one years of age, receiving a commission in the Royal Engineers. Offered a post under the Palestine Exploration Fund, he spent some years in Palestine, and was employed to make a survey of the Island of Cyprus.

When Lord Wolseley waged the campaign of Tel-el-Kebir in 1882, Kitchener was given command of the Egyptian cavalry. Then, from 1884 to 1885, he was with the Nile Expedition. He commanded at Suakim in 1887 and he succeeded Sir Francis Grenfell as Sirdar in 1890.

Kitchener stepped into world fame and into the heart of every Englishman in 1896. It was then that he began the reconquest of the Soudan, and two years later the Soudan was conquered. Thereupon, he was promoted to the rank of major-general, received a grant of $150,000 with the thanks of Parliament, and was raised to the peerage. Thereafter he was popularly referred to as Kitchener of Khartoum.

The days of glory for Kitchener came again in 1899, when he was sent to South Africa as chief of staff with Lord Roberts. How he finished the Boer War, how he arranged the Peace of Vereeniging, and how he came home to be made a Viscount, with the thanks of Parliament and a grant of $250,000, are all matters of recent history. From 1902 to 1909 he was commander-in-chief in India, and after that returned to Egypt in the capacity of British agent and consul-general at Cairo, thus returning to the scene of his first triumphs.

Kitchener of Khartoum has proved his mettle in many and varied capacities. He is one of those remarkable Englishmen whose mission it is to rule countries which have come under British dominion during the extension of world-wide empire. He was recently created an earl

by King George and has received many distinguishing honors.

Many stories are told of him, a characteristic one being his reply to the War Office, which sent him obsolete guns when he asked for the newest. He is reported to have sent the sarcastic reply, "I can throw stones at the enemy myself."

SIR JOHN RUSHWORTH JELLICOE

SIR JOHN RUSHWORTH JELLICOE, has recently been made Vice-Admiral Commander-in-Chief of the British Home Fleet. He is fifty-five years old and has spent forty-two years in the Navy. As a lieutenant he was present at the bombardment of Alexandria and afterward took part in the battle of Tel-el-Kebir as a member of the Naval Brigade. At the end of this war he was presented with the Khedive's Bronze Star for his gallant service.

When the ill-fated *Victoria* was rammed by the *Camperdown* and sent to the bottom of the Mediterranean Sea, Jellicoe was seriously ill with the Malta fever and confined in the hospital quarters of the ship. Sir John Tryon and more than six hundred officers and men lost their lives, but "Jack" Jellicoe escaped.

"How?" he exclaimed recently, in speaking of the incident. "I do not quite know myself."

Suffice it to state that his temperature registered at 103 shortly before the collision, and when he was fished out and landed aboard the rescuing ship it was normal, and normal it remained.

Admiral Jellicoe was sent to China in command of a naval brigade in 1898 to help subdue the Boxer Rebellion, and later he acted as Chief of Staff to Admiral Edward Seymour during the attempted relief of the Peking Legations in 1900.

Severely wounded by a bullet through his lungs at Teitsang, when he recovered the German Emperor conferred upon him the Order of the Red Eagle and presented him with swords for his great service to the world in general and the Germans in particular who were involved in the Chinese Rebellion.

Returning from China an invalid, he married Florence Gwendoline Cayzer, in 1902.

This picturesque sea-fighter served as rear-admiral in the Atlantic Fleet in 1907–8 and became Lord Commissioner of the Admiralty and Controller of the Navy in 1908–10. He became commander of the Second Squadron of the Home Fleet in 1911–12. On July 23d last, he was appointed Vice-Admiral and Commander-in-Chief of the British Home Fleet, and to him was sent that momentous cablegram when England issued her declaration of war — "Capture the enemy or destroy them."

Admiral Jellicoe is regarded by the English as responsible more than any other officer for the marvelous progress in the naval gunnery in the English fleet. The destinies of the British Navy are now in his hands.

MARQUIS ANTONIO DI SAN GIULIANO

THE Marquis di San Giuliano controls the foreign destinies of Italy. He is credited with plunging Italy into one war and keeping her aloof from another. He brought about the war with Turkey, but is opposed to helping Germany and Austria.

The Italian Minister of Foreign Affairs belongs to an ancient Sicilian family of Norman descent, and was born in 1853. He is an aristocrat to the core. Devoting himself to national problems, and being well informed, he entered public life as a senator. At first, on account of his great fluency, he was regarded as a seeker after place and power. His first official appointment was to an inferior position of Under Secretary in the Department of Agriculture. Upon his own urgent appeal he was transferred to the foreign department — a really momentous event, as it proved for Italy. He made such an impression that when the Pelloux Cabinet came into power, in 1899, he was made Postmaster-General, a post that was entirely uncongenial to him.

But upon the Cabinet's reconstruction he attained his goal, becoming head of the foreign office. Here he came in direct contact with the King, who for long was unable to understand the extraordinary secretiveness of his Minister. But the King's confidence was at last gained by their mutual interest in old coins, curios, ancient monuments, etc.

San Giuliano has been an extensive traveler in Soudan and Abyssinia, in Asia, and especially in the Balkan States. Through the Triple Alliance, he became the repository of the secrets of the Austrian and German Alliance, of the intrigues between Russians and the Turks, and the spy system of Austria, all which, keeping to himself, made him the mystery incarnate of Europe. Pressed to tell what he knew, he always replied: "I'll tell everything when the time comes."

As a former Ambassador to Britain he appeared everything that an Italian should be, polished and suave, unpeccable in taste, original and brilliant — indeed, Machiavillian. At home he exhibited many talents, literary and artistic, which he attributed largely to the influence of his mother, a daughter of the Prince of Cassaro, a great social leader. At one time he owned the leading journal in Italy, and to that and other periodicals he contributed largely. Upon the drama of the day, he is a recognized authority, as well as on art. He is a student and a lecturer. The distinguished Italian is well remembered in America, having spent a considerable time in the United States during the Interparliamentary Union at St. Louis in 1904, as the president of the Italian Delegation. As a result of the Italian-Turkish War, the King created him a Knight of the Order of the Annunciation, which invested him with the titular designation of cousin of the King and almost royal prerogatives.

PRIME MINISTER NIKOLA PASHITCH

NIKOLA PASHITCH, the Prime Minister of Servia, the little kingdom around which rages the European War, is a little gray-eyed man, 68 years of age, of medium height, high forehead, and long bearded face that shows virility and intellect. He was born at Zayenchar, Servia, in 1846. Son of a very good family who gave him a good education, he later on was sent to the Technical Institute in Belgrade, where he remained for four years, from 1868 to 1872.

At thirty years of age, Pashitch became a military engineer in the Servian-Turkish War in 1876. He remained there two years. After the war he appeared as a very active member of the National Deputies in the old Radical Party. During the struggle of the Serbs he forced his way to the official leadership of the Radical Party which is now in power in Servia. That happened in the year of 1881.

Realizing that his people were not making progress, his spirit revolted, and, in 1883, he joined the Zayenchar Mutiny, but escaped to Russia while twenty-one of his confederates were sentenced, executed, and shot. It happened that at this time Pashitch was near the border of Bulgaria, and therefore he was able to escape, only to return later and pick up the struggle where he had been forced to stop.

During the amnesty of 1889 he was made the mayor of Belgrade, and it was now that the people were able to see this man play an important part in the aid of his countrymen. He became Prime Minister of Servia.

He was sent to St. Petersburg as ambassador of Servia in 1893, where he won the great admiration of noted diplomats in that capital. It was at this time that he cemented the friendship of Russia and Servia which exists so strongly to-day.

Pashitch was accused in 1899 of stirring a mutiny. He was tried and sentenced, but fought imprisonment. The charge was finally suppressed at the intervention of Russia, where he had already gained impressive respect.

The people believed in his great personality and character, and he was made Minister of Foreign Affairs after the assassination of Alexander, King of Servia. When Peter became King of Servia he was made Prime Minister.

In Germany, Pashitch is looked upon as the creator of the Balkan Alliance.

ADMIRAL HUGO VON POHL

THE chief of the admiralty staff in Germany is a mild gentleman 59 years of age. Admiral Hugo Pohl was born in Breslau on the 25th of August, 1855. When he was only twenty-one years of age, in 1876, he became lieutenant in the Imperial German navy and three years later was made a first lieutenant. He became lieutenant-captain on the scouting cruiser *Carola* in 1887. His next commission was with the military department of the Imperial naval office, and later he became officer on the ironclad *Wurttemberg*.

His ability gained his steady promotion and he was made korvette-captain and leader of the central office of the Imperial naval board in 1894. Four years afterward he became frigate-captain and commander of the ironclad *Ægir*. His next ship was the cruiser *Hansa*. He became captain at sea in 1900. Within five years he was a commodore in charge of the scouting ships, with the duties of second admiral of the first squadron. It befell him to take charge of the work of setting up the new naval stations from Kiel to Sonderberg in Schleswig in 1908. He was awarded for his work in connection with that undertaking by being promoted to vice-admiral in 1909.

Admiral Pohl (up to the outbreak of the present European difficulties) is one of the few commanding German naval authorities who have been on a German ship when it exchanged the actual shots of war The only opportunity Germany has had to try out the navy, since Admiral von Tirpitz renovated it, was at the forts at Taku, China, in 1900, while the Boxers were active.

Admiral Pohl, like his superior, Admiral von Tirpitz, is an exponent of a large navy for Germany. He would divide the fleet into two squadrons, one to be kept in the North Sea in order to protect the German coast, and the other squadron to roam the world's waters seeking prizes and doing what it can to destroy property of the enemy.

With the Kaiser he is extremely popular and wears, as a gift from his sovereign, the medal of the second class (with black) Order of the Crown. The Czar, whose ships Von Pohl must try to destroy, has bestowed on him the St. Stanislaus Order.

COUNT HELMUTH VON MOLTKE

GENERAL MOLTKE, who, as chief of staff, is credited with the disposition and direction of the German forces at the outbreak of this war, is four years older than his French antagonist, General Joffré. General von Moltke looks what he is, a typical product of German militarism, face like a mask, rigid, formal, official.

Like Admiral von Tirpitz, Chancellor Bethmann-Hollweg, Furstenberg, and Von der Goltz, he is a "Kaiserman"; that is to say, he is now, and has for many years been, a favorite of the Kaiser, holding his position by a combination of favor and ability — though rumor has several times declared that his star at court had grown dim and that only the Kaiser's inability to find a suitable successor had kept him where he was. When his uncle, the famous field marshal Von Moltke, died in 1891, the present General became aide-de-camp to the Kaiser and has been chief of the general staff of the army since February, 1904.

General von Moltke has not shown himself to be a great military genius. Many believe him a less able strategist than General von der Goltz. His promotion to chief of staff caused a good deal of unfavorable comment which has however disappeared with time and the evidence that Von Moltke is able to handle an extraordinary amount of work.

EMPEROR FRANCIS JOSEPH

A BROKEN down old man, eighty-four years of age, who holds down the destinies of Austria, precipitated the present war in Europe. His tragic career began sixty-six years ago, when, on December 2, 1848, as a slim, pale, delicate youth of eighteen, he found himself suddenly confronted by a throne. Two weak-willed gentlemen, in turn, somewhat frightened at the responsibility of warring states within their Empire, successively laid down its crown with immense relief, and left the beardless student, only recently out of the famous Theresianum College, to assume its burden.

As to whether he, too, at that age, might have exhibited some of the wavering spirit of his father, Archduke Francis Charles, and his uncle, the Emperor Ferdinand of Austria, had it not been for his mercilessly ambitious mother, the Princess Sophia, only the words in which he greeted his new honor can give us any clue: "Oh, my youth! Thou art forever gone from me!"

Yet with those words on his lips he put that youth behind him, mounted the throne, and became Emperor of Austria, destined to go down in history as one of the commanding figures of his age.

He found his empire composed of seventeen warring kingdoms, chief of which was Hungary. For nineteen years, internal dissensions and external aggressions engaged his attention, yet in all this time only two little principalities slipped from his grasp.

Recognizing in Hungary, however, a spirit of independence that could not be quenched, he granted in, 1867, the organization of the dual monarchy of Austria-Hungary, each country retaining control of its internal affairs, but uniting in the selection of ministers of finance, war and foreign affairs, to act for both countries under one Emperor.

With inimitable diplomacy, Francis Joseph, "the Reform Emperor," as he came to be known at the time of the establishment of the dual monarchy, while thus granting constitutional government to his people, has managed, because of the warring elements which make up his two Parliaments, to retain the real reins of government in his own hands.

His people have sorrowed with him in the succession of tragedies which he has suffered: first, the execution of his brother, the Emperor Maximilian, in Mexico; then the tragic death of his son, the Crown Prince Rudolph, found slain in his hunting lodge with the Baroness Maria Vetsera; to be followed in the year of his golden jubilee by the assassination of his wife, the Empress Elizabeth; and, finally by that event which has plunged all Europe into war, the assassination of the heir-apparent, the Archduke Ferdinand and his morganatic wife, the Countess Sophie Chotek, while on a visit to the Servian capital.

For years the press and public have been awaiting the death of this wonderful wise old Emperor, and the loosing of the bonds which have held his varying peoples together, as the signal for a general Continental war, yet it seems that not even to Death is he willing to delegate his kingly prerogative. Years ago, the old German Emperor said of him: "Francis Joseph has three ministers of the whole monarchy, eight of Austria, ten of Hungary, and three of Croatia — in all, twenty-four — yet when anything is to be done, he has to do it himself."

SIR JOHN DENTON PINKSTONE FRENCH

SIR JOHN FRENCH, sixty-two years of age, is one of the two foremost active generals of the British Army. He stands, with the one exception of Secretary of War Earl Kitchener, as probably the most striking military figure in England.

His eventful career has led him to India, Africa, and Canada, and always with brilliant results. In the Boer War he was the one English general who was uniformly successful. His soldiers were popularly supposed to have had no sleep. At the time of the Siege of Kimberley, he was shut up in Ladysmith with the Boer lines ever circling closer and no retreat possible for the English troops even if they had wanted it. But if Kimberley, with its great treasure of diamonds, was to be saved from the Boers, the beleaguered troops had to be relieved and Sir John was apparently the only man who could accomplish it. The Boers were allowing trains to run out of Ladysmith carrying the women and children to safety, and in one of these — by squeezing under the seat of a second-class carriage — French managed to escape. Once outside the Boer lines, he made his way to the Cape, where he was put in charge of about eight thousand cavalrymen With horses dropping every mile, stopping only long enough to annihilate every Boer force sent to impede his progress, he swept through the Free State, riding both day and night until he reached Kimberley. He was just in time. Two days more would have seen its enforced surrender.

His family intended Sir John for the Church, but when he was fourteen he chose the navy instead and joined the *Britannia*. However, he left the navy for the army in 1874 and in a long series of battles he soon proved his military skill. He commanded the 19th Hussars from

1889 to 1893, rising steadily in rank after that until, in 1907, he was made Inspector General of the Forces, and in 1913 Field Marshal.

His once fair hair is gray now, but his Irish blue eyes have not lost their sparkle, and his keenness for long tramps has kept down the extra pounds which his short, stocky figure has shown a tendency to put on.

WINSTON SPENCER CHURCHILL

THE commanding personality in the Admiralty Office in London during the present crisis is a tall, slender, clean-shaven, gentleman of scholarly bearing, a journalist and soldier, forty years of age, who came to the front in the South African war.

Winston Churchill, the First Lord of the Admiralty since 1911, is half American in his parentage. His mother was Jennie Jerome, of New York, before her marriage to the late Lord Randolph Churchill. The young statesman was born November 30th, 1874, and sent to Harrow when 14 years old.

His military training began at nineteen years of age, when he entered Sandhurst in 1893, and became lieutenant in the Fourth Hussars two years later, when he entered the army. He served with the Spanish forces in Cuba, where he won his first order, "Military Merit of the First Class," and incidentally acted as special correspondent of the *Daily Graphic*.

Churchill's first experience in actual warfare was when the Fourth Hussars were ordered to India. Here he fought on the Malakand Frontier. In 1898 he was attached as orderly to the first expedition, joining the Twenty-first Lancers to accompany Lord Kitchener up the Nile for the re-conquest of Khartoum. His interesting and outspoken correspondence for the *Morning Post* attracted wide attention.

Continuing as war correspondent, he rushed off to South Africa, where he was captured by the Boers and made his adventurous escape from Pretoria prison. It was at this time that the Boers, with what Mark Twain designated as "unconscious humor," posted the following description of him: "Englishman, 25 years old, about five feet eight inches high, indifferent build, walks a little with a bend forward, pale appearance, red brownish hair, small mustache, hardly perceptible, talks through his nose, cannot pronounce the letter "S" properly and does not know any Dutch."

The American people first made their acquaintance with their brilliant young English cousin when he visited the United States in 1900 to lecture on the Boer War. Churchill was elected member of Parliament for Oldham, as a Conservative. He soon went over to the Liberals, and returned to the House as Under Secretary for the Colonies (1906-1908).

Upon the reconstruction of the Government under Mr. Asquith in 1908, Churchill became president of the Board of Trade (1908-1910). He was advanced to the post of Home Secretary in 1910 and he became head of the navy, as First Lord of the Admiralty, in 1911. He announced that he purposed to make British naval supremacy endure at any cost, a policy that has given the British Navy a 60 per cent. advantage in dreadnaughts over Germany in the present conflict.

GENERAL PAU

GENERAL PAU is the French Commander next in rank to General Joffré. It is proof of his popularity and efficiency that, having been retired for age at sixty-seven, he had resumed active service before the outbreak of the present war as a result of a popular campaign to reinstate him. Short, thick-set, thoroughly French in manner, he is even a more complete contrast than is General Joffré to the rigid type of German commander.

CROWN PRINCE FREDERICK WILLIAM VICTOR

THE most extraordinary figure in Europe to-day is the young Crown Prince of Germany, thirty-two years of age. Riding at the head of his troops, the most significant of his characteristics is a profound admiration for Napoleon. He believes in rule by divine right, and is said to be impatient to have this divine right go into effect. Several years ago his appearance at the Reichstag, to dissent from the Chancellor's proposed peaceful arrangement with France about Morocco, made him the leader of the war-seeking element in Germany, and incidentally led to considerable friction with his imperial father.

The Crown Prince, is tall, slim, and impulsive. His full name is Frederick-William-Victor-August-Ernst. The late Queen Victoria, his great grandmother, was his godmother. After completing a course at the military cadet institution at Ploen, like the Kaiser, and his grandfather, Emperor Frederick, he attended Bonn University. On the completion of his university course in the spring of 1903 he set out on his travels.

To train him for his future responsibilities he was first sent to the offices of the Potsdam provincial government for study of local administration. Then he was turned over to the Prussian Ministry of the Interior to acquaint himself with the intricate routine through which two thirds of the German people are governed. Since then the Crown Prince has studied naval administration at the Admiralty, besides acquiring some knowledge of the workings of Bismarckian diplomacy at the Foreign Office.

He married the Duchess Cecilia of Mecklenburg-Schwerin, in 1905. The Kaiser has remarked of his hotheaded son: "Well, William is no diplomat. I will admit it, but I believe the fellow has got marrow in his bones. He will turn out to be our Moltke yet."

RÉNÉ VIVIANI

RÉNÉ VIVIANI, the present Prime Minister in France, was born in Algeria. His success in French politics has been due to his interest in labor. When the office of Minister of Labor was created by the Clemenceau Government in 1906, he was the first man to fill it. Although the next Government was of an opposing faction, M. Viviani still was kept at his post. In accordance with his labor sympathies, he worked consistently against the law providing for a compulsory three-year period of service in the army, in favor of which the country recently voted.

M. Viviani is an able man, but his strong points are not particularly war and diplomacy.

BARON VON DER GOLTZ

WHEN the Bulgars and the Servians drove the Turks out of Thrace and Macedonia two years ago, the rest of Europe took the rout as a German defeat. Superficially, they were right. The organization and mobilization of the Turkish army were entirely German in plan and the beaten Turks fought in German uniform with German artillery and rifles. The correspondents who so glibly drew these conclusions very rarely modified them by additional information as to how plans and organizations, excellent in themselves, had been disregarded or inefficiently carried out. One can no more blame a German rifle for missing fire with French ammunition than one can draw conclusions about Krupp artillery served by raw recruits.

Field Marshal von der Goltz taught the Turkish army all that it ever knew about modern fighting except courage, which it is unnecessary to teach a Turk. He has also taught the German army much of what it knows of the technique of fighting, and the German army is not handicapped by Kismet nor by unmilitary politics. Baron von der Goltz out of his uniform would fit convincingly into a professor's chair at a university. He is now seventy years old, and for more than fifty years of his life has been working and writing and fighting. Being a first rate fighting man has not hindered his writing a number of historical books which are standards in and out of Germany.

PRIME MINISTER IVAN GOREMYKIN OF RUSSIA

A STRONG hand on the wheel of statecraft in Russia to-day is that of the economist and sociologist, Prime Minister Ivan Goremykin.

Goremykin was born in St. Petersburg in 1848. He received a good academic training in that city and graduated from a university. He became interested in his country and when twenty-one years published his first book. Later on he wrote a history of the Polish peasants, and with the success of this effort he added another volume entitled "The Land of the Russian Peasants." These efforts of study in things pertaining to his country directed the attention of his Government sufficiently to make him Chief of the Emigration Department into Siberia.

Eventually he rose to be Minister of the Interior, and in 1906, Prime Minister. The country was in a revolutionary state. Count Witte had resigned. Goremykin declared to the Duma that amnesty was impossible in Russia in the case of persons guilty of murder or other acts of violence. He also declared that the agrarian possibilities could be worked only by time. He then submitted a programme of reform. The Duma would not accept these reforms. Revolutionary disturbances recommenced. The massacre of the Jews took place and a clash came when the agrarian proposals were renewed. Goremykin was immediately replaced by Stolypin, who was later assassinated.

During the next few years Goremykin took no active part in any official position, but acted as advisory functionary to the Czar in all matters relating to economic and social questions.

Goremykin's plan for the salvation of Russia is economic. His whole wish is to distribute the people over the different territories. They call him an old-time conservative who desires things to go his way in slow, steady paces.

GENERAL PUTNIK OF SERVIA

THE commander-in-chief of the Servian army, General Radumil Putnik, is a self-made man about sixty-five years of age who has worked himself up through the Servian wars and revolutions until to-day he stands a conspicuous figure before the world. He was born about 1849 in a small place near Belgrade in the southern part of Austria. He is a thorough-born Servian despite this fact. He is a small man, of large, round head, chestnut brown eyes, and a beard cut in Van Dyke fashion. His whole occupation has been as a soldier.

General Putnik gained his earliest training in a military academy which then existed in Servia. He joined the army voluntarily. Later on he went to France to study the military tactics of Napoleon. These experiences merely gave him satisfaction, as he has not succumbed to any other method but his own. He is practically a self-taught man.

In the recent war between the Balkan allies he was chief of staff of the Servian army.

As a general he strips his uniform of all its trappings and tinsel and appears in plain regimental apparel with the two straps on his shoulders as insignia of his rank. He has every opportunity to make large sums of money, but as his wants are simple he used his funds to endow schools. During the Balkan troubles he directed his forces from a small shanty by the use of the telephone.

CHIEF OF STAFF GENERAL PUTNIK (RIGHT)
WHO DIRECTED SERVIA'S ARMS AGAINST TURKEY

PRIME MINISTER N. P. PASHITCH
THE GUIDING SPIRIT IN SERVIA

KING PETER OF SERVIA AND THE CROWN PRINCE
WHO SERBS HOPE WILL RULE OVER A GREATER SERVIA IN THE BALKANS

KAISER WILLIAM II OF GERMANY

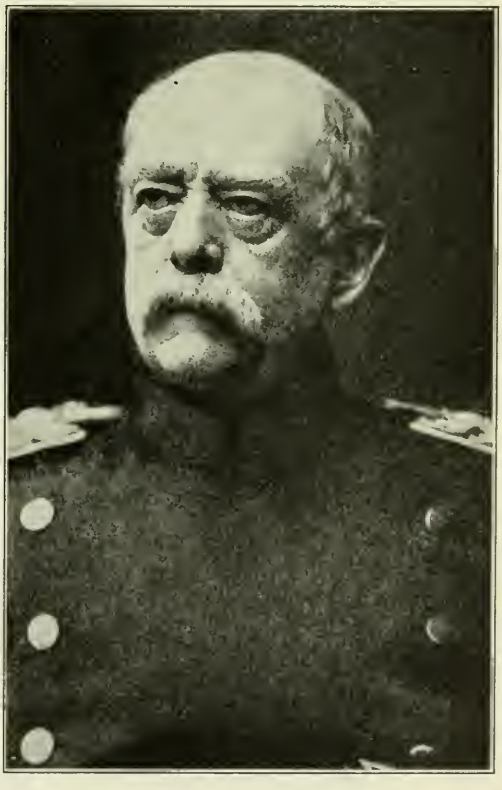
"NO GREAT DECISION CAN ANY LONGER BE TAKEN WITHOUT GERMANY AND WITHOUT THE GERMAN EMPEROR" — EMPEROR WILLIAM'S SPEECH, JULY, 1900

THE "IRON CHANCELLOR" AND THE PRESENT GERMAN EMPEROR

WILLIAM II INHERITED FROM BISMARCK THE TRADITION OF GERMAN IMPERIALISM AND MILITARISM, BUT NOT THE SAGACITY WITH WHICH BISMARCK USED THEM

CROWN PRINCE FREDERICK WILLIAM

WHO IS IN COMMAND OF AN ARMY CORPS IN THE PRESENT WAR



OTTO VON BISMARCK

WHO MADE A UNITED GERMANY, "NOT BY SPEECHES AND MAJORITY VOTES BUT BY BLOOD AND IRON"

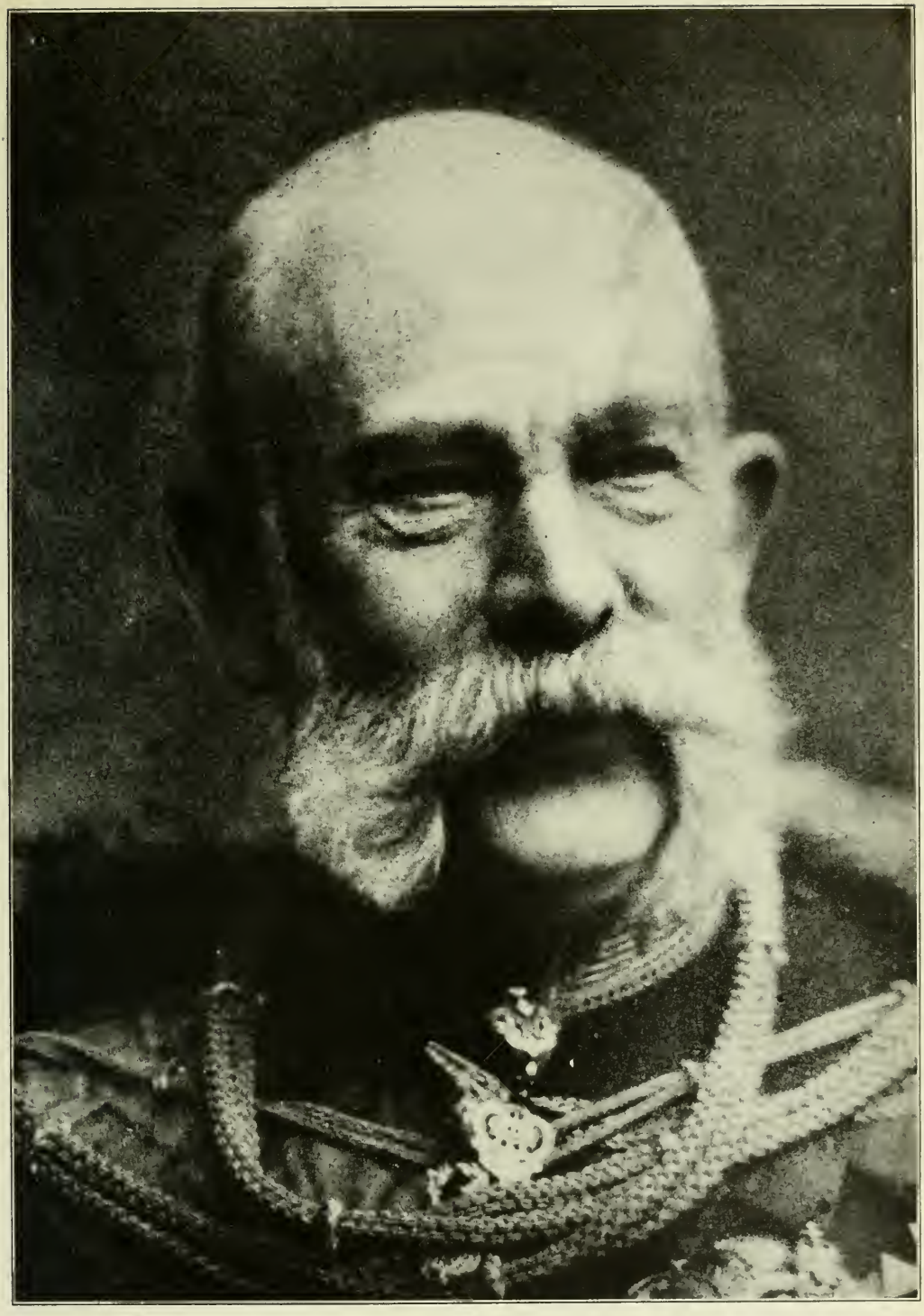
SEA LORD AND CHANCELLOR

ADMIRAL VON TIRPITZ (LEFT), CHIEF OF THE ADMIRALTY AND CREATOR OF THE GERMAN NAVY; AND DR. VON BETHMANN-HOLLWEG (ABOVE), IMPERIAL CHANCELLOR, THE FOURTH TO HOLD THE OFFICE SINCE BISMARCK

GENERAL VON MOLTKE, CHIEF OF STAFF

A NEPHEW OF THE FAMOUS VON MOLTKE IN COMMAND IN 1870-71

MINISTER OF WAR, GENERAL VON FALKENHAYN



EMPEROR FRANCIS JOSEPH

A MUCH BELOVED RULER WHO HAS REIGNED 65 YEARS OVER A POLYGLOT DUAL MONARCHY WHICH MANY PEOPLE HAVE BELIEVED WOULD DISINTEGRATE UPON HIS DEATH

COUNT BERCHTOLD, THE AUSTRIAN PREMIER

WHO PLANNED WAR AGAINST SERVIA TO SUBDUE SERB AGITATION IN HUNGARY AND TO STOP THE SLAV DOMINATION OF THE BALKANS. OTHER PICTURES: (ABOVE) COUNT VON HOTZENDORF, HEAD OF AUSTRIAN ARMY; (BELOW) ARCHDUKE CHARLES FRANCIS, HEIR TO THE AUSTRIAN THRONE

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EMPEROR FRANCIS JOSEPH AND THE MURDERED ARCHDUKE, FRANCIS FERDINAND

THE ARREST OF THE ASSASSIN IN THE STREETS OF SARAJEVO, BOSNIA

THE ASSASSINATION WAS USED AS A CAUSE FOR WAR BY AUSTRIA

LEADERS OF FRANCE

GENERAL JOFFRE (LEFT) SUPREME COMMANDER OF THE FRENCH ARMIES; M. DELCASSÉ (UPPER) PREMIER IN 1898, THE FATHER OF THE ENTENTE CORDIALE WITH ENGLAND; PREMIER VIVIANI (LOWER), WHOSE CABINET WAS FORMED SHORTLY BEFORE THE WAR

M. RAYMOND POINCARÉ, PRESIDENT OF FRANCE

"OUR WORDS OF PEACE AND HUMANITY WILL BE ALL THE MORE LIKELY TO BE HEEDED IF WE ARE KNOWN TO BE MORE DETERMINED AND BETTER ARMED"—PRESIDENT'S MESSAGE, FEB. 20, 1913

SIR EDWARD GREY (LEFT) AND PREMIER ASQUITH

THE GUIDING SPIRITS OF THE BRITISH CABINET IN THE WAR CRISIS. SIR EDWARD GREY HAS DIRECTED ENGLAND'S FOREIGN POLICY FOR THE LAST NINE YEARS. MR. ASQUITH, WHO WAS WAR SECRETARY AS WELL AS PRIME MINISTER, RESIGNED THE WAR PORTFOLIO FOR THE APPOINTMENT OF EARL KITCHENER

EARL KITCHENER, OF KHARTOUM (LEFT), AND SIR JOHN D. P. FRENCH

EARL KITCHENER IS GENERALLY CONSIDERED THE ABLEST ACTIVE SOLDIER IN GREAT BRITAIN. SIR JOHN D. P. FRENCH, WHO WAS ONE OF THE FEW ENGLISH OFFICERS WHO GAINED DISTINCTION IN SOUTH AFRICA

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THE DIRECTORS OF ENGLAND'S DESTINY AT SEA

SIR JOHN R. JELLICOE (UPPER LEFT), IN COMMAND OF ALL THE FLEETS; SIR GEORGE CALLAGHAN (RIGHT), COMMANDING THE NORTH SEA FLEET; FIRST LORD OF THE ADMIRALTY WINSTON CHURCHILL (LOWER LEFT), WHOSE PROPOSAL TO GERMANY IN 1912 TO REDUCE NAVAL ARMAMENTS WAS MET BY AN INCREASE OF SIX BATTLESHIPS IN THE GERMAN FLEET

AN UNNATURAL ALLIANCE—THE CZAR AND KING GEORGE V

RULERS WITH A LONG-STANDING COLONIAL RIVALRY AND OPPOSING POLITICAL BELIEFS; AUTOCRAT AND CONSTITUTIONAL MONARCH, DRAWN TOGETHER, AS AGAINST NAPOLEON ONE HUNDRED YEARS AGO, BY THE KAISER'S AMBITIONS IN THE NEAR EAST AND ON THE OCEAN

THE RUSSIAN MINISTER OF FOREIGN AFFAIRS, M. SAZONOFF AND (ON THE RIGHT) THE RUSSIAN AMBASSADOR TO GERMANY

GRAND DUKE NIKOLAS NIKOLAIVITCH

COMMANDER AT ST. PETERSBURG, AND, WITH GENERAL SUKHOMLINOFF, CHIEFLY RESPONSIBLE FOR THE PRESENT STATUS OF THE RUSSIAN ARMY

GENERAL SUKHOMLINOFF
THE RUSSIAN MINISTER OF WAR

THE CZAR AND PRESIDENT POINCARÉ
ON HIS VISIT TO RUSSIA IN JULY FROM WHICH HE HURRIEDLY RETURNED JUST BEFORE HOSTILITIES BEGAN

THE MARQUIS OF SAN GIULIANO AND VICTOR EMMANUEL III.

THE MINISTER OF FOREIGN AFFAIRS AND THE KING WHO REFUSED TO PLUNGE ITALY INTO THE WAR STARTED BY ITS ANCIENT ENEMY AND PRESENT ALLY, AUSTRIA

THE KING OF "THE COCKPIT OF EUROPE"

KING ALBERT OF BELGIUM. THE GERMAN VIOLATION OF HIS TERRITORY WAS MET BY AN UNEXPECTED RESISTANCE FROM BELGIUM AND BY ENGLAND'S ENTRANCE INTO THE WAR

NEW THINGS IN WAR

GUN-TURRETS ON LAND — RUSSIA'S MONSTER AEROPLANE AND SUBMARINE — THE FRENCH ZEPPELIN DESTROYER — MINES ON LAND AND AT SEA

BY

JOHN. S. GREGORY

WAR is now waged on earth, in the air, on the sea and beneath the waters thereof with the aid of numerous devices never before tested in actual hostilities. Aeroplanes, automobiles, and submarines have been used in previous wars, to be sure, but on scarcely more than an experimental scale. All have been greatly improved since these tests and many accessories have been added. Radical changes, believed to be improvements, have also been made in more familiar material and methods. Altogether, some of its devotees profess to believe that the art of war has been revolutionized. Whether it has or not the world will soon know.

Most spectacular of new developments in warfare is the advent of the airship and the aeroplane on an imposing scale. Military authorities of all Europe appear to have become convinced of the value of these new fighting machines. At least, France, Germany, and Russia, and more recently, England, have displayed an energy amounting to frenzy in the development of these machines. With a current appropriation of $32,500,000 for the purpose, Germany set out to offset England's naval supremacy by building a great fleet of dirigibles. At first the British war department professed to scoff at Germany's purpose; but after contemplating the possibility of a fleet of airships flying across the North Sea a comprehensive programme for building air craft was undertaken in haste.

Millions have been lavished on experiments with air craft, aviators have been drilled by hundreds, every contingency in war that could be foreseen has been tested at the annual army manœuvres of the great nations. The result has been the development of two widely different types of flying machines, each of which has its own peculiar sphere of usefulness.

Germany pins her faith to the dirigible, "The Dreadnaught of the Air," of which two principal types have been developed, the Zeppelin, and the Schuette-Lanz. These monsters are from 400 to 500 feet long, have a speed of 50 to 70 miles an hour, a cruising radius of 1,200 to 3,000 miles, and a carrying capacity of from eight to ten tons. They are armored against rifle and machine gun bullets, carry small guns, wireless telegraph, and a crew of 20 to 30 men.

As an indication of their reliability, the Zeppelin Company announced that out of 334 days from January 1, to December 1, 1912, their airships flew on 308 days, being up a total of 1,167 hours and covering a distance of 41,145 miles and carrying a total of 10,291 persons, including 5,609 members of the crews and 4,682 passengers, all without a single fatal accident.

From the German point of view these craft are battleships of great destructive power, for they can release half a ton of explosives at once; and in experiments they have completely shot to pieces the silhouette of a village from an altitude of six thousand feet. Another, flying at an altitude of three thousand feet, got the range of a canvas target representing a boat on Lake Constance at the third shot, and then scored nearly one hundred per cent. of hits. These big ships have a platform on top of the gas bag on which a machine gun is mounted as a protection against aeroplanes.

Against these bulky and somewhat clumsy dirigibles France has developed the "Zeppelin Hunter," an aeroplane, armored against machine gun and rifle bullets, carrying two or three men besides the pilot and a couple of machine guns. The French regard an encounter between an aeroplane and a dirigible as a climbing contest. The strategy of the aeroplanist is to get above his big and awkward antagonist just as a king-bird gets above a hawk, and from this superior height to drop explosives upon the big fellow. The dirigible, on the other hand, depends upon its superior armament and the far greater steadiness of its gun platform to protect it from the aeroplane.

These widely different types of air craft are expected to play two distinct rôles: the dirigible is a fighting machine to be directed against troops in the field, and more especially against the works of the enemy, trains, bridges, magazines, etc., and to protect its own lines from incursions by hostile aeroplanes on scouting expeditions. The chief value of the aeroplane is in reconnaissance. Its superior speed is expected to enable it to elude dirigibles. Only in an incidental way is it expected to assume the offensive, with its machine gun or by dropping bombs.

An exception to this is the giant Sikorsky aeroplane, a Russian machine capable of carrying seventeen men. With its great bulk and comparatively slow speed this recently invented type must necessarily be a fighting machine rather than an aerial scout.

Notwithstanding the frequency of tragedies in the air the aeroplane also has been developed into a fairly trustworthy machine. Colonel Seeley surprised the British House of Commons last April by informing it that there were only six days in the preceding year on which there had been no flights by British army aviators, and that there had not been a single fatal accident or the breakage of any main part of a machine while in the air.

In France, where the aeroplane is considered more valuable than the dirigible, the aviation corps has been organized with the *Escadrille* as the unit. The personnel and material of the *Escadrille* is designed with the object of keeping six machines in the field. Its transport consists of three automobiles for the crews, two motorcycles, six motor trucks with "prolonges," an extra pair of trailing wheels on which the aeroplanes, folded, are hauled, and two workshops on motor trucks. One of these aviation camps was struck, packed, and ready to move in less than an hour at the 1913 manœuvres.

THE NEW ART OF OBSERVATION IN MIDAIR

The aeroplane scout must fly high and swiftly to avoid hostile bullets. At an altitude of three thousand feet, at which he is fairly safe, he has a range of vision of four to five miles. Troops on the march can be seen and their number estimated by the road space occupied. Artillery in action is easily distinguishable, as are cavalry and transport of all kinds on the move. Massed infantry in the open is fairly distinct, though khaki-clad men in open order or moving over stubble or plowed fields are difficult to distinguish, and they are not always readily seen on grass. The flying scout can readily obtain an idea of trenches, outposts, and methods of occupation of bridges and fords. Field works, if their color and outlines do not blend with the landscape, can be seen at a distance of five miles, though they are not readily distinguishable. It is difficult for the aviator to tell "dummy" trenches from real ones.

French aerial scouting is superb. The commanding general can count on having any specified region examined. The art of observation from midair has been reduced to a system as exactly regulated as that of cavalry reconnaissance. British aviators have also distinguished themselves by their success in aerial scouting.

Yet there is another side to the story, for aviators are as far from perfection as their fellow mortals are in other ways. At the 1913 manœuvres, a French general and his staff were surprised and captured despite the utmost vigilance of his aerial scouts. A British "Blue" division of twelve thousand men with horses stole a march of sixteen miles on the "Red" division while the aerial scouts of the latter were hunting for it. The men skulked along under hedgerows and other cover while guns and transport wagons were hidden under straw so that they might be mistaken for farmers' wagons. Whenever a "Red" aeroplane came into view a whistle from the "Blue" lookout warned every man to crouch in his tracks, or under the nearest cover. Aerial scouts have been repeatedly deceived in German manœuvres.

Although the Germans claim to have dropped bombs from an altitude of five thousand feet on a target fifteen feet in diameter, extravagant claims regarding the effectiveness of aerial bombs must be accepted with reservations. In a lecture before the Brooklyn Aeronautical Association, Mr. Hudson Maxim, who must be conceded to be an authority on explosives, said that explosives so powerful and destructive when employed in aerial bombs as to fulfil expectations and predictions of the scaremongers could not be made. The destructive power of torpedoes and shells is enormous under favorable conditions, but never so great as the average man supposes after a short course in blood-curdling aerial fiction. Experiments with dropped live shells and explosives showed that although they might land within a remarkably short distance of the target it was just that distance that made all the difference in the resulting damage; for the effects of high explosives are very local. Furthermore, the momentum of a heavy object falling from a great height is so great that it is buried in the ground and the force of the explosion is thus neutralized. Judging from analogy with artillery practice against towns, aerial bombs are not worth the time, energy, ammunition, and risk to life involved. In the Boer War, Ladysmith withstood the battering of twenty thousand or more shells with practically no damage. Similar results were observed at Pretoria. Lyddite shells dug caves and made breaches in the walls of a fort at Omdurman, but did little real damage.

Experiments in defense against hostile aeroplanes and airships have been quite as elaborate as those in offensive operations. It has been found, for instance, that at 3,000 feet an aeroplane is a hard thing to hit, though experience in actual warfare has shown that an aeroplane affords a pretty good target.

AEROPLANES VERSUS SUBMARINES

A curious development in aerial navigation has been the pitting of the airship against the submarine. In fairly clear and smooth water submarines and even submarine mines can be readily seen from the lofty outlook of an airship or aeroplane. As the submarine moves slowly when under water a battleship guarded by aerial scouts might be able to manœuvre out of the way. It has also been proposed to use the airship as a mine destroyer by dropping bombs near enough to the mines to explode them, the ships following close enough in the wake of the aerial pilot to avoid other mines outside the cleared zone.

At all events, England regards the airship as such an important naval auxiliary that the dirigibles have all been turned over to the navy, the army retaining only aeroplanes. The navy also has a number of seaplanes, and the naval

appropriation for the current year carries an item of $400,000 for the construction of a new ship for carrying seaplanes. This will be the first vessel of the kind ever constructed for this special purpose, though France has two makeshift vessels of the kind.

Accessories to be used by or in connection with air craft are innumerable. Although Germany has no fewer than thirty airship sheds between Berlin and the frontier of France, special railroad cars have been provided with steel bottles to be kept filled with hydrogen gas with which to inflate the huge dirigibles. These cars are always ready and can be rushed anywhere they may be needed in a hurry. The airship stations are equipped to facilitate night work, being provided with colored electric flashes, each station having its own code of signals for aerial pilots. The dirigibles are equipped with searchlights to aid in alighting.

The actual number of craft in these aerial fleets is known only to their respective governments. Published statements differ so widely that the following figures can be offered only as probably the most trustworthy approximation:

DUAL ALLIANCE

	DIRIGIBLES	AEROPLANES
Germany	22	320
Austria-Hungary	7	100
	29	420

TRIPLE ENTENTE AND ALLIES

	DIRIGIBLES	AEROPLANES
France	16	834
Russia	10	164
Great Britain	6	250
Belgium	2	40
Servia	—	10
Montenegro	—	1
	34	1,299

A German bomb designed for use from the air weighs twenty pounds and is charged with four pounds of trinitrotoluol and 340 steel balls. To guard against mishaps it has a safety catch so that it will not explode until a fall of at least two hundred feet allows a revolving vane to unscrew the safety catch and bring the firing pin in contact with the explosive. A slight touch will then set off the bomb.

The Krupp works have devised a fire bomb which sheds a bright light during its flight to the earth and after it strikes so that airship gunners may be able to aim accurately during the darkest night.

Another German bomb for the use of aeroplanists and airships releases a tremendous quantity of dense smoke which spreads in a great cloud, under cover of which the aviator may possibly have a chance to make his escape.

Still another bomb is charged with 150 pounds of chemicals which, upon exploding, is supposed to fill the air with gases so poisonous that every living creature within a radius of a hundred yards will be killed, and the influence of the gas is expected to extend to a lesser degree to twice that distance.

The French have a message carrier, to be dropped by an aviator who wishes to continue his flight, consisting of a brass tube in which the message is enclosed with a charge of Bengal fire, which is ignited by a firing pin on striking the earth. The fire and smoke mark the spot long enough for a man to reach it from a distance of three hundred yards.

Progress in submarine craft and projectiles has been as marked as in airships. Submarines are older than the flying machine but, even so, their size, trustworthiness, and radius of action are amazing. A typical submarine may be said to be 148 feet long, by 15 feet in diameter, and to be capable of a speed of eleven knots on the surface and five knots submerged. Some of the more recent have a radius of action of 4,500 miles; that is, they could cross the North Atlantic without replenishing their fuel and stores. While cruising on the surface they are propelled by gasolene engines. In running submerged they use electric motors that are driven by storage batteries, which are charged by the gasolene engines while on the surface. They are not a particularly comfortable craft, even for the most seasoned mariner; but they can go anywhere at any time. If the weather gets too rough they can submerge and thus escape the worst of the wave motion. In tests submarines have stayed under water for twenty-four hours at a time.

Russia, which has produced a successful aeroplane vastly larger than any other nation has ever thought of building, also has under construction a submarine so enormous that all others seem pigmies by comparison. This great submarine cruiser is 400 feet long, 34 feet beam, and of 5,400 tons displacement, which is eleven times the size of the next largest craft of the kind. Its engines of 18,000 horse-power are capable of driving it at a speed of 26 knots on the surface, and its motors of 4,400 horse-power are capable of maintaining a speed of 14 knots submerged. Either on the surface or beneath the waves the giant Russian is capable of swiftly overhauling any other vessel of its kind. It has a cruising radius of 18,500 miles, and can run under water a distance of 275 miles at a stretch. Its armament consists of five 4.7-inch. guns for surface fighting, and 36 torpedo tubes, of which 16 are on each broadside. It carries sixty torpedoes and 120 mines, for it is equipped for laying mines. It is capable of creeping into an enemy's harbor under cover of darkness so that no lurking aeroplane can discover it, surrounding the hostile fleet with mines so that certain destruction will follow any attempt to move, and creep away again, and be not only out of sight but also beyond suspicion when the tragedy it has prepared is enacted.

As a protection against their new enemy, the flying machine, German submarines are now equipped with a machine gun which folds down

within the hull when cruising either on the surface or submerged. If an inquisitive aeroplane comes too near, the submarine can rise to the surface while a man climbs out, fishes up the machine gun, and attacks the aerial enemy.

The unvarying accuracy of the new gyroscope compass is expected to be of great value in enabling the submarine to stalk its prey with the least possible risk to itself. A hostile ship can be located at a distance of eight miles, after which the submarine can run fully submerged with the aid of the gyroscope compass to within striking distance.

A TORPEDO THAT WEIGHS 1600 POUNDS

Great improvements have also been made recently in the torpedo. Lieutenant Hardcastle, of the British Navy, has perfected a torpedo that weighs 1,600 pounds and that carries a charge of 250 pounds of guncotton, enough to blow the whole side out of a battleship. It has a range of 7,000 yards, or about four miles. In this case, too, the gyroscope plays a vital part. A torpedo fitted with the new gyroscope is more certain of hitting its mark than the big guns. Furthermore, the gyroscope rudder can be set so that the torpedo can be fired from the broadside of a ship, when it will turn through an angle of ninety degrees and run dead ahead to its target.

Other great improvements that have completed the revolution of the torpedo are the substitution of the turbine engine for the old three-cylinder engine of the original Whitehead torpedo, and a method of heating the compressed air that furnishes the power. Air under high pressure is contained in a flask within the torpedo. When the latter is fired a valve is opened, admitting air to the engine through a reducing valve which brings down the pressure to 300 pounds. As the flask is emptied the temperature falls, sometimes below zero. This freezes oil on the bearings and generally retards the torpedo and renders it ineffective. By adding a flask of alcohol with a method of igniting it when the torpedo is fired, the air is heated after leaving the reducing valve and before entering the turbines, thus greatly increasing its efficiency. When the pressure in the air flask is reduced and the temperature falls another burner is automatically lighted that heats the air flask itself, thus preventing freezing. This quadruples the range of the projectile. According to the best available information the submarine equipment of the five warring nations is as follows:

SUBMARINES

Great Britain	64
France	61
Russia	29
Germany	18
Austria-Hungary	6

These figures are a year old. Facts about submarines are jealously guarded military secrets.

One of the most notable phases of the campaign will be the wonderful revolution wrought in transportation methods by the automobile and motor truck. On the battlefield, as elsewhere, the horse is yielding to motor-driven vehicles the place he has held so long. In recent years Germany, France, and England have systematically subsidized motor trucks on condition that they should be available for governmental use in case of need. In Germany, by complying with certain conditions, the purchaser of a motor truck receives a subsidy of $1,000, to be applied on the purchase price, and $250 a year for upkeep for four years. These subsidized trucks must carry a load of 13,000 pounds and haul a trailer besides, be capable of running ten miles an hour with full load, be able to climb a 14 per cent. grade, and be able to haul a second trailer if necessary. Eight hundred subsidized trucks were available, up to January 1, 1912. The number has since been materially increased, and, besides, the Government has the power to requisition every motor vehicle in the Empire. At the very beginning of hostilities it even exercised the privilege of requisitioning the automobile of a party of American ladies who had innocently crossed the frontier.

Even the motorcycles are subsidized. When the war began a force of 2,000 subsidized motor cyclists, or *schnellfahrer* (fast riders), as the Germans call them, were ready for instant service in carrying dispatches, reconnoitring, and the like. In times of peace, these *schnellfahrer* have the blessed privilege of disregarding all speed limitations, are paid $2.50 a day at manœuvres, are protected against loss of their positions while serving the Government, have their machines repaired at the Government's expense in case of accident, and are themselves cared for in hospitals without expense if they get hurt while riding. In case of mobilization they are paid full value for their machines.

In France the owner of a three-ton motor truck can get a governmental subsidy of $600 and $200 a year for upkeep for three years. Here, too, the Government freely exercises the right to take possession of all motor vehicles if needed. All the taxicabs in Paris were commandeered at the beginning of hostilities.

Great Britain allows a subsidy of only $40 to $60, and $75 a year for upkeep. Austria-Hungary also subsidizes motor vehicles and requisitions all that are needed.

The result of all this is to render the armies in the field to-day mobile beyond the wildest dreams of strategists of a former generation.

Artillery, which has been so radically improved that it now plays a far more important part in deciding battles than it ever did before, is hauled by motors to a large extent in the armies of all the countries now at war, especially the big guns. The French gave their artillery tractors an elaborate test in the 1913 manœuvres. These tractors are of a special build and of 35 horse-power. They are equipped with a winch and chain cable for pulling the gun out

of the mud. They can carry a load of two and a half tons and draw fifteen tons additional at a speed of fifteen miles an hour and climb a grade of 10 per cent., with a full load. In an emergency the speed can be considerably increased.

Everything that an army in the field needs, or can use, is now provided, mounted on motor trucks, though such equipment is by no means universal. There are auto ambulances, auto kitchens, auto wireless outfits, armored autos, sleeping and office autos for the generals, and special airship guns for firing at a high angle mounted on motor trucks.

A Russian automobile field kitchen consists of a motor truck carrying the stock of provisions and a trailer containing the kitchen designed to prepare food and coffee for 250 men at one time, or 2,000 men in twenty-four hours. The kitchen includes a twenty gallon coffee pot and a kettle of a capacity of 53 gallons that is jacketed with glycerine, which retains the heat so that the contents continue to cook after the fire is out and keep hot for six or eight hours on the well known fireless cooker principle. Food and coffee are transferred to fireless cookers to be taken to the men in the field.

No commander has ever been able to keep in as perfect touch with all the units of his force as those in the field to-day, for in this line also there have been improvements in recent years. The portable field wireless telegraph is being used for the first time in a great war. Portable wireless sets of various sizes are made for use in the field. One outfit is transported on a single wagon. It has telescoping masts that can be set up in a very short time, and a gasolene motor for driving the generator that furnishes the current. A still smaller outfit which can be packed on three horses has a generator that is driven by cranks turned by two men.

The field telegraph and telephone, which have rendered good service in former times, have been developed into a combined instrument about the size of a large field glass and weighing $4\frac{1}{2}$ pounds. An insulated field wire weighing 75 pounds to the mile, which can be used lying on the ground, can be laid from a reel on an auto at ten miles an hour, or it can be carried on horseback, or a man on foot wearing a reel strapped to his breast can creep right up to the firing line, where he can establish a station simply by thrusting a steel ground rod into the earth. The commander can maintain communication with each unit of his force at all times, for these lines can be laid as fast as troops can advance against the enemy.

However, the modern commander is by no means dependent on the field telegraph or telephone to keep in touch with his troops. He now has aeroplane and motorcycle messengers, besides the signal flag and the heliograph, all which have their place in the equipment of the modern army. Even the homing pigeon, which was used for carrying messages in the days of the Pharaohs, still has its place in the scheme of military organization, for the wireless telegraph and the motorcycle can no more supplant these time-tried messengers than the aeroplane scout can take the place of cavalry. But even the homing pigeon has been modernized. In no previous war did pigeons have the advantage of military training

The famous performance of these winged messengers during the siege of Paris in the Franco-Prussian war, when they carried upward of forty thousand messages, was the result of an inspiration rather than of forethought. Private citizens who chanced to have pigeons offered them to the Government. Their performance was such a splendid success that France has ever since maintained large flocks in charge of the engineer corps. The birds are carefully trained as soon as they are able to fly and are then drilled daily for the rest of their useful life. They are taught to fly and to alight on signal. The first thing Bismarck did after the treaty of peace was signed was to establish pigeon lofts in Berlin and elsewhere throughout the Empire. Every other nation in Europe followed his example, and to-day every Government has thousands of pigeons, all ready to carry messages in time of war.

At the siege of Port Arthur the Japs made such effective use of improvised hand grenades that the attention of military experts was attracted, with the result that this ancient weapon has also been modernized. One type of modern hand grenade, the Aasen, weighs one kilogram, and contains 190 bullets. As these fly in all directions, it can be used only from under cover. Another form of the grenade can be fired from a "howitzer" weighing about twenty-four pounds, which can be carried in a case like a rifle. It throws a murderous missile weighing about two pounds to a distance of three hundred yards. It explodes on contact, scattering 215 bullets over an area of about 100 square yards. Still another type of this so-called grenade can be fired, with the aid of a stick thrust into a rifle barrel, to a distance of four hundred yards.

Most deadly of all is the mine "grenade," weighing eight pounds and containing 400 large bullets. This is buried a few inches underground. When the enemy is over the mine the touch of an electric button causes it to spring out of the ground until it is checked by a chain at a height of a yard above the surface, when it explodes, mowing down every man in the vicinity.

The mine at sea is not a new device, but it has been brought into particular prominence by the sinking of the first British warship, the cruiser *Amphion*. In the Russian-Japanese war the Japanese used electro-mechanical mines as well as free mines around the harbor of Port Arthur. The Russian flagship, the *Petropavlovsk*, was blown up by the mines set off by electricity. On the other hand the Japanese themselves were literally hoist by their own petard, for they lost two of their largest ships, the *Hatsume* and the *Yashima*, from the free

mines that they loosed for the destruction of the Russian battleships.

Every decade in the last half century has seen an improvement in the accuracy, range, and power of heavy artillery and the destructive power of the projectiles.

The Belgian resistance at Liège has drawn public attention to modern fortresses and their defence. Heavy shells fired from long ranges will penetrate as much as twenty feet of sand, which offers more resistance than other soils. Moreover, a shell which explodes after it has penetrated soil will cause more damage than if it explodes in the air, on account of the confinement of the earth it has penetrated. Walls exposed to fire are therefore made of from five to ten feet of concrete, sometimes reinforced with steel. Over these there is a few inches of dirt as a bed for grass, so that the fortification may be concealed.

In practically every European country either turrets or iron and steel revolving cupolas containing guns such as those at Liège are in use. The cupolas are a kind of flattened dome, and the turrets are flat topped like those aboard ship. There are "disappearing" cupolas mounting small guns, oscillating cupolas set up on edge and balanced by springs which turn the cupola forward after a shot is fired until the gun is under cover, and others that move on a central pivot. There are large single gun cupolas with very heavy armament and smaller ones of light batteries. There are even portable ones.

The value of night attacks, always more or less appreciated by military commanders, was emphasized in the Russian-Japanese War, with the result that troops have been specially drilled in this form of operations, and numerous devices for offense and defense have been invented. One of these is the portable searchlight with which all European armies are provided to some extent at least. These consist of a generator driven by a gasolene engine mounted on an automobile. These are especially relied upon for protection in case of attack by a dirigible, and also in attacks on the ground. Without light, artillery would be of little use in a night attack; but with a searchlight playing upon an assaulting column, it can be used with deadly effect.

In the absence of a searchlight a force may be equipped with parachute lights, a sort of grenade weighing fourteen ounces which, with the aid of a firing stick, can be shot from a rifle to a distance of fifty to a hundred yards, where it will float in the air and burn brilliantly for a half to three-quarters of a minute. A larger form of parachute light fired from a field gun with a small charge of powder floats in the air, giving a dazzling light for several minutes.

A phase of the war of interest to the military expert is the fact that an American invention, the gun silencer, devised by Hiram Percy Maxim, of Hartford, will be given a thorough trial. There are Maxim silencers in small numbers in each of the nations now at war. The inventor expects that the military advantages of the silencer will be developed, just as Great Britain demonstrated the value of machine guns at the battle of Khartoum. When the inventor's father, Sir Hiram Maxim, first presented his Maxim gun it was considered an extremely clever and interesting novelty, but impractical under the conditions of warfare. The old argument against Gatling guns was revived against it — that ammunition could not be supplied fast enough. If it taxed the organization to keep the firing line supplied with ammunition when men with repeating rifles were firing twenty shots a minute, what would happen if an attempt were made to supply machine guns firing 650 shots a minute? But when the English at the great battle of Khartoum were able to rout an enormous rush of mounted Egyptians they decided that the machine gun was a pretty good thing, after all.

No world power has been at war with another world power since the Maxim silencer was invented, though very elaborate field trials have been conducted. Some of the silencer's advantages are, according to official reports, the muffling of the noise of firing, allowing the voice of the officer to be heard, thus giving better control of firing. The nervous strain and consequent fatigue of the soldier due to the distressing noise of firing is abolished. Another important aspect is that it not only muffles the noise but at the same time reduces the recoil, so that it becomes a gentle push instead of a sharp blow. The soldier no longer flinches instinctively as he pulls the trigger. This is conducive to better marksmanship, and, by abolishing nervous strain, the soldier is less liable to yield to panic. The diminution of the noise of the report increases the enemy's difficulty in locating the firing line. The difficulty is still further increased by the fact that the flash is absolutely annulled in the dark.

All the foregoing facts show what a huge experiment the present war is. It will settle not only the fate of Europe for many years to come, as all the diplomatists are predicting; it will settle the future of warfare itself. In many respects these new contrivances, like the aeroplane and submarine, introduce elements that really put a premium upon military skill. In others, such as the new bombs and the proposed use of gaseous fumes, they simply add to its most brutal horrors. After considering these new engines, the conviction remains that there is only one possible "improvement" in modern accoutrements. The newspapers have recently described the so-called invention of a young Italian by which explosives could be shot off at a distance, something on the wireless principle. That invention seems clearly to have been a fraud. The idea, however, seems to be about the only thing that could make warfare more horrible than it is. Before this conflict is over, possibly some one may actually make it work.

AUSTRIA'S CIVILIZING MISSION

UNIVERSAL SUFFRAGE UPON THE INITIATIVE OF THE EMPEROR — AUSTRIA'S RELATIONS TO BOSNIA LIKE THOSE OF THE UNITED STATES TO TEXAS — SERVIA'S OPPOSITION TO AUSTRIA'S BENEFICENT WORK

BY

AN AUSTRIAN DIPLOMAT

AT THIS portentous moment in history, when the activities of Austria-Hungary in the Near East have suddenly been made a world-issue by the outbreak of the most terrible war in the history of civilization, the aims and methods of the dual monarchy are of paramount significance.

Situated upon the outskirts of Central Europe, in the debatable region between the West and the East, Austria stands in a peculiar sense as the connecting link between civilization and vanishing barbarism, between to-day and yesterday. The double eagle of Austria is the symbol that connects racial fragments in a civic bond which spells progress and peace. The aims of Austria, whether in the Balkans or further east, are mainly commercial and cultural. They are political only in so far as the geographical situation of the dual Empire makes it incumbent upon her statesmen to maintain her territorial integrity and to provide for the normal expansion of her industrial output.

The attempt to centralize and Germanize the Austrian Empire as a whole has been twice made — once under the Emperor Joseph II, toward the end of the eighteenth century, and again under Francis Joseph after the suppression of the revolution of 1848. In each case the attempt failed, and it was abandoned as impracticable by the present Emperor-King. Hungary had always retained its old liberties under the hegemony of the Magyars. By the compromise of 1867 the dual form of the monarchy was definitely fixed. So carefully were the rights of the various races in the Empire safeguarded under this readjustment that in Hungary, for instance, the Croatians were recognized as a separate entity, under their own Ban or Governor, their separate diet, and their distinct machinery of local and provincial administration.

In Austria proper the constitution of 1867 created a central parliament in Vienna and left a large measure of autonomy to the old provinces. One of the most important articles of the constitution guarantees to every nationality the free use of its language "in word and writing." By this means it made forever impossible any attempt to interfere with the legitimate aspirations of the various races in the Empire. In fact, the entire spirit of the new constitution was to assure to each race the greatest and freest use of its language in its educational system, from the primary school to the university, in the diets, in the provincial legislatures and in the administration, excluding only the ministries at Vienna, and in the courts with the sole exception of the Supreme Court in the imperial capital.

Even to this last reservation in favor of a central authority an exception is made. In Polish litigation the entire process of litigation and judicature, including the highest court, may be carried on in the Polish language.

Only in the army common to the Empire is there a common language, and that language is the German. This arrangement is not based upon any propaganda, but is the outcome of the entirely practical consideration that an army made up of so many races as is the Austro-Hungarian would be badly handicapped in the performance of its duties if it did not have a common language of command and communication. The selection of the German language for this purpose was the logical outcome of the German origin of the Empire.

The tangible result of this practically unlimited freedom of race-development is presented by the present complexion of the Reichstag in Vienna. So long as the franchise was based upon property qualifications the votes of the landed proprietors kept a disunited German majority in the Reichstag, but the granting of universal suffrage upon the personal initiative of the Emperor a few years ago resulted in the return of a Slavic majority in the imperial legislative chamber — a remarkable result if one is to believe the persistent charges that Austria has sought to destroy or Germanize the Slavic nationalities within its boundaries.

This presence of a Slavic majority in the chamber has brought about a state of affairs wherein no Austrian administration can neglect the wishes of the Slavic groups without being forced to resort to the short-lived and unpopular expedient of imperial decrees.

Thanks to its liberal treatment of the claims of contending nationalities, the German element in many parts of Austria is already on the defensive, and the ascendancy of the Slav element is more and more felt in the political and intellectual life of the Empire. The Slav has taken

the offensive all along the line, and the Germans have lost many important positions in the civil and financial administration and in the courts. Bohemia is the centre of the Slavic movement. In Prague, the capital of Bohemia, the new Czech university is a dangerous rival to the old German university, the renowned Carolina, founded in 1348 by the Emperor Charles of Luxemburg. This Czech university has become the focus of Slav science, literature, and thought — and, unfortunately, also of pan-Slavic agitation, as hundreds of Servian and Croatian students have flocked to its gates to be imbued with the dreams of the future universal Slavic domination.

In the midst of these contending racial forces, the mission of Austria has been, first, to introduce among the great Slavic populations within her borders the ideals of German culture and German civilization. Her greatest achievements in this direction have been in Bohemia. It is recognized by the Slavic world universally that the Slavic movement in Prague is the outcome of German culture inculcated by Austria. It is one of the tragic circumstances of history that the German culture imparted to the Czechs is now operating in favor of the pan-Slavic cause, intellectual and political.

In the east, the mission of Austria has been suggestively indicated by the flow of the Danube. Eastward and southward, with the current of the mighty river, have gone Austrian cultural and industrial activities, hand in hand. And one of the earliest stations of the commercial and moral expansion — the stations of Austria's *Drang nach Osten* — are Bosnia and Herzegovina.

The destinies of Bosnia and Herzegovina came under the purview of Austria in 1876-77, when the revolutionary movement in the provinces, in conjunction with the Servian war against Turkey, was suppressed with unexampled severities by the Ottoman government. At that time the natural refuge for the stricken Christians of Bosnia-Herzegovina was Austria. Two hundred thousand of them were cast upon the resources of the authorities and had to be taken care of. As there was no promise of the immediate amelioration of the stricken provinces the question of the day at Vienna became the final solution of the problem of introducing order and personal security in the territory infested by brigands and terrorized by official severities, just across the Turkish border.

The relation of Austria to Bosnia and Herzegovina duplicated in a marked degree that of the United States and Texas during the Texan uprising against Mexico, and the solution of the problem in the case of Bosnia and Herzegovina, as in that of Texas, appeared to be an Austrian occupation. This destiny of the distracted provinces was recognized by the Congress of Berlin, which adjusted the affairs of southeastern Europe after the defeat of Turkey by Russia in 1877. The congress, after a thorough balancing of international interests and international jealousies, handed over the two provinces to Austria for pacification and administration, and conceded to Austria the right to occupy the Sanjak of Novibazar, the narrow strip of territory which lay between Servia and Montenegro. This occupation was in the nature of a condominium with Turkey.

Installed in Bosnia-Herzegovina by the mandate of Europe, Austria entered upon its task of cleaning the Augean stable of Bosnian affairs with an energetic realization of the difficulties of its undertaking. The first obstacle that confronted the newly installed authorities was an uprising of the Begs, or Mohammedan nobility. Aroused by the land-owning Moslems, secretly instigated by the Sultan, they undertook to oppose by force of arms the peaceful entrance of Austria into its new functions. The outcome of the contumacy of the Begs was a six months' war, which ended in the suppression of the Moslem resistance and the restoration of internal peace. Next, Austria undertook the task of cleaning out the brigands who infested the country and made travel and commerce practically impossible.

Side by side with measures for the pacification of the provinces and the restoration of internal order, the new Austrian administration accomplished wonders in the construction of a system of roads, the first that Bosnia and Herzegovina had had since the Ottoman conquest.

The land question in the newly occupied provinces was extremely delicate. When Austria marched into Bosnia she found there a survival of the feudal ages in the distribution of the land. The entire area of the provinces, with rare exceptions, was owned by the Begs, and the tenants who cultivated them for the scant reward of one-half the produce were in a condition of peonage. Two alternative solutions of the question presented themselves. One was the forcible expropriation of the lands of the nobles, and the other was the gradual distribution of the holdings through a period of years.

It is one of the foremost grievances of the Servian agitators on the Austrian border provinces that the administration of the dual monarchy did not at once proceed to the seizure of the land and its distribution among the peasantry by arbitrary means, after the method employed by the Servians after the fall of the Ottoman power in Servia. Such, however, was not the Austrian method of dealing with the rights of property, and it had been understood by the signatories to the treaty of Berlin that no agrarian revolutionary measures would be undertaken by Austria.

Baron Kallay, the first Austrian civil administrator of Bosnia-Herzegovina, however, adopted the much more equitable and on the whole far more successful plan of encouraging thrift among the peasants, and at the same time enabling them to achieve independence by the gradual acquisition of the lands they cultivated. This conservative reorganization of the agrarian

system of the country was accomplished through the aid of the Land Bank of Bosnia, an institution of private finance under the rigid supervision of the Government. Baron Kallay's project, which produced highly satisfactory results, was carried on by his successors, Burian and Bilinski.

The educational problem of the provinces was no less difficult than that presented by the distribution of the land. When Austria entered Bosnia-Herzegovina in 1878, she found no schools there, with the exception of a few mosque classes and madrasahs for the chanting of Arabic prayers and verses from Al Koran. Far from attempting to make German the language of the people, or even the language of the more highly educated among them, the Austrian authorities at once undertook the establishment of native schools, in which the instruction should be carried on in Serb or in Croatian, the former written in the Cyrillic or Bulgarian alphabet, and the latter in Latin characters. Not only was no attempt made to introduce German schools, but the Government declined to permit the expenditure of public money for instruction in any language except the two named idioms of the Slavic language.

This liberal policy stands out in sharp contrast to the destructive activities of the Servians in the newly occupied Macedonian lands, where they have closed all the Bulgarian schools amid circumstances of severity, to which some reference is made in the Report of the Carnegie Commission. Certainly there is nothing in the establishment of Serb schools by Austria in Bosnia and Herzegovina to justify the contention of the Servians that Austria is seeking to crush out Serb nationality under the rule of the double eagle.

Nevertheless, the Servian propaganda in Bosnia and Herzegovina, following closely the Servian propaganda in its first stage in Macedonia, was conducted along cultural lines, quite regardless of the palpable fact that the people of Servia themselves stood in need of all the cultural efforts of which their Government and their financial resources were capable. This fact is easily demonstrable when it is remembered that in 1909 the Slavs of Bosnia and Herzegovina, after thirty years of Austrian administration, stood higher educationally than any of the independent Slavic nations of the Balkan Peninsula. Despite the manifestly hostile purposes of the so-called cultural Servian propaganda in the border provinces, the Austrian authorities took no measures to combat it until it had entered the phase of bomb-throwing, in which the Servians had become adepts in the course of their abortive struggle for the conversion of Macedonia to Serbism. And that final and intolerable phase of the Serb nationalist propaganda was close at hand. The crisis began in 1909, when the Austrian Government declared the annexation of Bosnia and Herzegovina.

This annexation was based upon three essential considerations, each one of which would have been considered sufficient in itself by any nation. The first of these considerations was the mandate of Europe; the second was the right of conquest, established at the beginning of the occupation by the suppression of the armed resistance of the recalcitrant Begs; the third was the expenditure of about $250,000,000 by the dual monarchy for the construction of railroads and other means of communication, public works of various sorts, and education and local improvements; and the fourth was the duty of continuing a régime which had brought peace and prosperity to the country itself. All the signatories to the treaty of Berlin readily acquiesced in the accomplished fact as a logical outcome of accomplished events.

Servia, however, conceived that it had been robbed by the act of the Austrian Government, and the press of that country launched a campaign of bitter and indecent vilification of the dual monarchy. The contention of the Serbs that they were entitled to the annexed provinces was based upon two considerations, each easily demonstrable as absurd. The first was that Bosnia and Herzegovina had been a part of the great Servian Empire under Stefan Dushan about five hundred years ago. This argument may best be compared with a Mexican claim to Texas because that state had formerly been a part of Mexico. And the Servian pretension to Bosnia-Herzegovina is very much weaker than the hypothetical Mexican claim to possession of Texas, because the inclusion of the contested provinces in the gigantic empire of Dushan (The Strangler), which was only one tenth as large as the State of Texas, lasted, as did the empire, only about twenty years.

The second basis of the Servian claim to Bosnia-Herzegovina is the allegation that the provinces are inhabited by people of Serb race, of Servian language and of Serb faith. Not one of these contentions even approaches the facts. Of the less than two millions of people who populate the provinces, only 800,000 at the most are orthodox Serbs. The remainder are Roman Catholic Croatians, whose written language the Orthodox Serb cannot even read unless he has a knowledge of the Latin characters, or Mohammedans, who detest the Servians heartily and despise them profoundly.

The frothing protests which the Servian press continued to make against the act of annexation, it was realized clearly at Vienna, were instigated partly from St. Petersburg, where the statesmen saw, or pretended to see, a fresh sign of Austrian encroachment upon the Southern Slavs, those dear Southern Slavs whose destinies have been for centuries the pawns on the chessboard of Russian diplomacy. But the Russian statesmen did not observe, or, observing, did not care to admit, that Austria, while annexing Bosnia and Herzegovina, had definitely abandoned her alleged road to

Salonika by the withdrawal of her troops from the Sanjak of Novibazar, which was the key to the military situation in any advance further south and east. A glance at the map will convince even the most hostile critic of Austrian policy in the Balkans that the abandonment of Novibazar by Austria is incompatible with any suspicion of an Austrian design of territorial expansion in the direction of Salonika or of Constantinople.

Thus events wore on toward the culminating tragedy of Sarajevo. In 1913 the Serbs had attained a wild dream through the annexation of a large part of Bulgarian Macedonia by the defeat of Bulgaria in the second Balkan War. The Servian campaign in Bosnia-Herzegovina, following out its previous metamorphosis in the Macedonian agitation that preceded the alliance with Bulgaria for the first Balkan War, emerged from the "cultural" stage and entered the bomb-throwing phase. The assassination of the Archduke Francis Ferdinand and his consort at Sarajevo by a young Serb patriot this summer startled the world and aroused Austria to the imperative need of energetic action to put a check upon a political and racial movement which had degenerated into a conspiracy to commit murder.

The tremendous events which have cast the world in gloom since July 23d are the outcome of Servia's resistance to Austria's demand for a cessation of this orgy of violence. The Servians have opposed Austria's civilizing mission with unpardonable venom, and Austria has not flinched before the task of undertaking to crush that opposition.

EUROPE'S FOOD SUPPLY IN WAR TIME

ENGLAND'S SUPPLY DEPENDS ENTIRELY UPON HER SUPREMACY AT SEA — GERMANY'S LARGE IMPORTATIONS OF WHEAT — FRANCE, RUSSIA, AND AUSTRIA-HUNGARY ESSENTIALLY SELF-SUPPORTING

BY

JAMES MIDDLETON

READERS of history are fond of detecting a resemblance between the present European situation and that which prevailed a century ago. Then the greatest European Powers were united in a struggle against one country — France; now they seem united against another common enemy, Germany. Now, as in 1814, all the forces of Europe are determined to humiliate one overweening personality. In one respect, however, and this is a fundamental one, the situation is entirely different. A hundred years ago practically every great European power was an economic entity. Each one could have built a Chinese Wall about itself and lived indefinitely. Each one, that is, raised on its own soil enough of the essential foodstuffs to support itself. Even England, in the Napoleonic wars, was largely an agricultural community. It raised both cereals and meat in sufficient quantities to stand an indefinite siege. Even as late as the Crimean War, in 1853, England could go cheerfully to war with no fear of national starvation.

If, as some one has said, an army travels upon its stomach, the same statement may be made of a nation itself at war. Clearly, any people that has its supply of food cut off would immediately have to submit to any humiliating terms proposed. Its position would be that of a huge beleaguered fortress. And there is at least one of the nations engaged in the present struggle, England, that faces this contingency; and another, Germany, that certainly has reasons for apprehension. A remarkable development of the present international situation is the dependence of one nation upon others for its food supply. There is no country of importance that does not import large amounts of food from almost every other. The United States, huge as are its foodstuffs, adds millions of dollars' worth to its supply from other sources. Even China, content, as we have supposed, with its staple rice, purchases immense quantities of American canned goods, especially salmon. Looking over the statistics, one is forced to conclude that there is no longer any such thing as a national taste in foods; each nation is rapidly picking up all the good things of another. The extent to which almost the entire world depends upon one or two countries for its coffee and tea — foods which, in the Middle Ages, were practically unknown in Europe — sufficiently illustrates the growth of this international taste.

In the present conflict, however, these special foods will cut no particular figure; the great staples of life are the important considerations in an international war. In this struggle, wheat, not cotton, promises to be king. What, then, is the situation of the several nations in

this respect? How are they to feed not only the huge armies in the field, but their own peoples? Unquestionably this is the first time in history when war has presented precisely this problem to the peoples involved.

THE NATIONS THAT CAN SUPPORT THEMSELVES

There are seven nations, at this writing, immediately involved. These are England, Germany, France, Russia, Belgium, Austria-Hungary, and Servia. We can immediately clarify the situation by arranging these countries in two classes: those that raise the essential food materials in sufficient quantities to support themselves, at least in time of peace, and those that do not. This division, as accurately as can be determined from available statistics, is as follows:

COUNTRIES SELF-SUPPORTING	COUNTRIES NOT SELF-SUPPORTING
Russia	England
France	Belgium
Austria-Hungary	
Servia	

DOUBTFUL
Germany

Of these Russia, next to the United States, is the largest wheat growing country in the world. Seven eights of all the peasants are tillers of the soil. Two thirds of all the lands are sown with cereals. The nation raises not only enough to support its own enormous population, but exports large quantities. France, most investigators are surprised to learn, ranks third — next to Russia and the United States — as a wheat growing land. The thrifty French farmers, with their comparatively small acreage, raise more wheat than the Argentine, British India, or Canada — all of them usually regarded as huge granaries. They produce 100,000,000 more bushels than the whole of South America. France grows about 315,000,000 bushels a year — almost half as much as does the United States in normal years; it imports about 22,000,000 bushels. Clearly, with strict economy enforced by war conditions, France can easily furnish its own wheat supply without calling on outside nations. Austria-Hungary and Servia are similarly situated. When we come to England, Germany, and Belgium, however, the conditions are different. The United Kingdom raises about 65,000,000 bushels of wheat every year and imports 217,000,000. Belgium raises 14,000,000 bushels and imports 40,000,000. The situation in Germany is not so acute as this, but still, with importations shut down, the wheat situation might become embarrassing. The empire raises 149,000,000 bushels a year and imports 67,000,000. Clearly the sudden wiping out of these importations, while they might not produce an actual wheat famine, would so considerably reduce the food supply as to amount to a distinct military disadvantage. Germany's situation is considerably better than that of England, but inferior to that of France and Russia. Russia raises all of its wheat and more; France raises ninety per cent; Germany raises sixty per cent. On the other hand Great Britain and Belgium raise only about twenty per cent. each. On the theory that a nation that raises only sixty per cent. of its most important article of food can hardly be regarded as entirely self-supporting, Germany is included, in the classification given above, as in a more or less precarious position.

ENGLAND ENTIRELY DEPENDENT ON OUTSIDE SOURCES

From the standpoint of food supply in case of war, England, of course, presents the most interesting problem. There was a time when English statesmen worried little over this situation. The supremacy of England's sea power was regarded as a fixed, determined fact The fleet was so immeasureably superior to other navies, and, indeed, to all of them combined, that England went on serenely developing a huge industrial state within, and depending upon other nations for its food. About fifteen years ago, however, Englishmen began to be nervous on this point; since then there have been periodical scares. The building of other formidable navies, especially that of Germany, began to cause general alarm. The last of these great searchings-of-heart was in 1903. Parliament then appointed a Royal Commission, of which the Prince of Wales, the present king, served as chairman, to investigate the question. This Commission collected a large array of facts, most of them alarming. It found that the precariousness of England's food supply was about as black as it had been described. England imports four fifths of all its food. Most of it comes from far distant countries — from North and South America, British India and Australia. It gets large quantities of butter, eggs, bacon, poultry, fruit, and potatoes, and other vegetables from France, Denmark, and the Baltic ports.

A certain amount of grain comes also from Russian-Baltic ports — and from the Black Sea region. For the larger staples, however, like wheat and meat, England has to go several thousand miles. It always has a comparatively small supply of food on hand. The swiftness of the modern steam vessel has made any large storage system unnecessary. Of butter it has normally only a seven or ten days' supply; of cheese only a month's supply; of eggs — England consumes 80,000,000 a week — only four or five weeks' supply. Its resources in wheat vary through the year; it has the highest supply in September, when it has enough for seventeen weeks, and the lowest in August, when it has enough for only six and one half weeks. England has a larger supply, however, than that stored up in its own larder. There is always an immense amount floating in ships — in thousands of English vessels, crowding the trade routes in all parts of the world. This

usually amounts to from three to seven weeks' supply. An interesting fact herein disclosed is that England's lowest stock on hand is reached in August — the very month in which she now goes to war. The whole food situation was well summed up in a formal declaration made to the Royal Commission by the most influential members of the wheat trade in London: "We, the undersigned, concur in the opinion that, if Great Britain should become involved in a European war, the country must be prepared to see bread at practically famine prices."

THE UNITED STATES SENDS LITTLE WHEAT TO ENGLAND

From 1870 until 1902, the United States did the larger part in feeding the British Isles. We not only had a large surplus of food stuffs, but the shortness of the voyage gave us an advantage over competitors. The enormous increase in our population forces us now to keep the larger part of our food, especially wheat, to feed our own stomachs. Although we are still the world's largest wheat producer, we send comparatively little of it abroad. England now draws its supply from Russia, Canada, the Argentine, British India, and Australia. The figures for 1911 are as follows:

PRESENT SOURCE OF ENGLAND'S WHEAT SUPPLY
(Hundredweights)

British India	20,161,518
Russia	18,106,100
Argentine	14,748,600
Canada	14,373,700
Australia	13,910,720
United States	12,939,229

England likewise imports two thirds of all its meat. It gets a small supply fresh killed from Holland and Denmark and a far greater amount in the shape of live animals from Canada and the United States. Its frozen carcasses come mainly from the Argentine and Australia. It usually has about one month's supply of all kinds of meat on hand.

SEA POWER ENGLAND'S ONE SALVATION

The practical question that has agitated England for many years has been: How are we to protect our food supply in case of war? Some authorities have advocated the building of huge granaries that would hold a large reserve supply. There are many practical objections to this proposition and it has never enlisted popular approval. Most Englishmen who have had the courage to face the situation have reached the same conclusion: that there is only one way of protecting the food supply and that is the navy. Even with England in command of the sea, there would be certain difficulties in feeding the nation; without this control, most people agree that the game would be fairly up. With a hostile navy blockading the important ports and so shutting out the foodships, England could undoubtedly be starved into submission in a few weeks. The Royal Commission, which investigated this subject, came to this conclusion. The enormous navy which England maintains in the North Sea, therefore, has ample justification.

England will probably control the sea in the present conflict; there are other problems, however, that she will have to solve. Many ships are drawn from the mercantile marine for the use of the admiralty; inasmuch as there are thousands of English ships, however, this probably will not seriously interfere with transportation facilities. Nor does there seem much danger that the German and Austrian navies will prey to any extent upon English shipping. The days of the privateer are over; the steamship, involving the difficulty of coaling, has practically made impossible this old fashioned roving of the sea. Nor is Germany likely to send any of her rapid cruisers to prey upon English trade; she will weaken her fleet, already considerably overmatched, by doing so. Neutrals ought not to suffer, especially as the Declaration of London has settled the fact that food, unless intended for military purposes — such as the feeding of armies and fortresses — is not contraband. Some English ships unquestionably will be captured; but there will be few in comparison with the depredations that seem likely to be made on German commerce. One consideration that especially protects England's food supply is the fact that it is not drawn from any one country, but from five — the United States, Canada, Argentine, Russia, and British India. It comes over three great trade routes — the North Atlantic, the South Atlantic, and the Mediterranean. The first has its most important port in New York, the second in Buenos Ayres, while the third leads to Bombay and Australian depots. There seems no likelihood that Germany can control these three transportation routes, or any one of them. When the Royal Commission made its investigation, the Mediterranean route was the one that gave the greatest anxiety. The *entente cordiale* was then not a factor in European politics; and war with France was not an impossibility. The Republic's naval strength in the Mediterranean, in that event, would have endangered such of England's food supply as came by way of Suez. The present European alignment makes this same Mediterranean route perhaps better protected than either of the other two routes.

UNITED STATES AS A FOOD SUPPLY IN WAR TIME

With an English fleet victorious on the sea, therefore, the English food supply seems abundantly safeguarded. In all probability, if the war lasts any time, the United States will largely increase its exports. Our natural position should make us the largest storehouse of the Englishman's food. The route to the River Plata is 6,500 miles; that to Bombay is 6,250 miles by the Suez Canal and 10,500 by the

Cape. New Zealand and Australia are 10,000 miles away; the distance to American ports, however, is only 3,500 miles. Moreover the ships coming this short distance can carry more than those sailing on the other routes. The longer the voyage, the more coal the ship has to carry, and, proportionately, the smaller is its cargo. Inasmuch as England will naturally import from the places whence the food will come quickest and in the largest amount, it should naturally draw first of all upon the resources of the United States. It will do this particularly this year, as our grain crop is unusually large and that of the other agricultural nations unusually small.

When we look to Germany, however, the opportunities for food importations do not seem so reassuring. In all probability German ships will not be able to use the North Sea. With both the French and the British fleets in the Mediterranean, there is apparently no hope of obtaining supplies from that source. It is even probable that the larger part of the mercantile marine which Germany has been building up at such enormous cost will be swept from the sea. That scurrying to friendly ports that marked the first days of war will probably develop into little less than a stampede. Moreover, while the blockading of the English coast is a difficult problem, owing to its character and extent, the blockading of the German North Sea sealine presents comparatively few problems to a victorious fleet. Germany will find some embarrassment also in the fact that she has gone to war with the country that furnishes the larger part of her additional food. This is Russia. She takes from the Czar's empire large quantities of wheat, barley, oats, and corn every year. In fact she imports foodstuffs from about the same countries as England herself. The following table, showing her importations of wheat, illustrates this point:

GERMANY'S IMPORTATIONS OF WHEAT
(Tons) 1912

Russia	558,422
Argentine	546,439
Canada	269,530
United States	446,512
Australia	322,590

The Germans, therefore, use the same trade routes as the English ships. With the English and French commanding the sea, however, the Germans can not draw much wheat from these sources.

GERMANY'S LARGE SUPPLIES OF MEAT

The cutting off of these foreign supplies would not affect Germany to the same extent that a similar scarcity would embarrass England. In the British Isles such a calamity would mean starvation; in Germany it would mean a severe scarcity of food. For Germany still produces the larger part of what it eats. Although in the last forty years the empire, like England, has become a great industrial state, with the consequent shifting of the population from town to city, the imperial policy has still promoted agriculture. Agrarianism has long been a political issue. As part of its monarchical system, the ruling forces have used the powers of government to sustain the landlord class. The junker aristocracy has been the mainstay of the throne and the prevailing social system. The government has, therefore, protected its interests by placing high tariff duties upon agricultural and meat products. As far as food is concerned the empire has been in about the same position as England before the passage of the corn laws; it does not raise food enough for its own purposes, and has difficulties in importing it. Especial restrictions have been placed upon the importation of meats. As a result, large supplies are grown in the empire itself. Germany produces almost one third as many cattle as does the United States — about 20,000,000 to our 71,000,000 — and stands second to the United States in the growth of hogs. In times of peace this protective policy has great disadvantages. As one result meat famines have become almost chronic. In recent years to supply the need, the municipalities have themselves erected slaughter houses and swineries. The increased cost of living has been an even more acute problem in Germany than here, and has figured largely in politics. All popular appeals for the removal of restrictions, however, have failed. And in times like these the policy has certain compensations. For it has furnished Germany a large supply of meat; in all likelihood it can worry along for an indefinite time without any imports.

Their embarrassment will come only from the destruction to crops that is incident to war, and to the removal of large masses of cultivators to face the cannon. No one can estimate, of course, to what extent these circumstances will affect the food situation.

The other three great countries, as already said — France, Austria-Hungary, and Russia — are practically self-supporting, so that their provisioning will involve no particular problem.

A crisis of the most serious character for the German farmer arose in the "four years of gloom" from 1896 to 1900. The competition of agricultural exporting countries, such as the United States, Argentina, and Uruguay caused a drop of more than 25 per cent. in prices. Mortgages increased, market value of land decreased, and in those four years alone the indebtedness of the farms increased by hundreds of millions of dollars.

Irretrievable ruin faced the German agriculturists and immediate steps were taken to save the situation. The protectionist policy was made more rigid, railroad rates were lowered on behalf of the home producer to enable him to meet foreign competition more successfully, government education of advanced agricultural methods was widely used, and a widespread system of credit in the agricultural department was organized.

THE RED CROSS OF THE WARRING NATIONS

THE EFFICIENT RED CROSS OF RUSSIA — HOW IT WORKS IN FRANCE AND GERMANY

BY

ARNO DOSCH

THE women of many nations wearing the Red Cross are following the armies on to the battlefields. The work of the Red Cross is more rapid and effective than ever before. Hospital corps have trailed ammunition wagons and the wounded have often been moved to field hospitals before the first numbness of injury has given way to pain. This is modern warfare, as unbelievably humanitarian as it is barbarous.

Every European nation in the war has an efficient Red Cross of its own. In every one the Red Cross has a somewhat different standing. In Russia it stands higher than anywhere else. it is given great freedom and deserves it. At the same time it is more of a state affair than anywhere in Europe. It is supported by special taxes and is given unusual privileges at all times. The nurses of the Red Cross form a sisterhood. They are, in a measure, consecrated to the cause. The Russians have come to a better understanding of the usefulness of women nurses on the battlefield than have the people of any other nation.

At the outbreak of the Spanish War, the Russian Red Cross, which was at the time almost the only effectively organized Red Cross in the world, offered its services to both the United States and Spain. The United States declined, but Spain accepted. The United States might have done better to accept. Lack of a modern Red Cross was responsible for much suffering and loss of life in Cuba and Porto Rico. Tampa and Chickamauga might have had other stories to tell if the Russian Red Cross had been there to help. Now, of course, such conditions would be impossible. Our own Red Cross has learned how to handle the situation.

The Russians divide the field work of the Red Cross into five divisions: Handling supply depots; taking the injured back from the firing line, which means an emergency transportation system; assistance to the regular surgeons; direct relief on the battlefield; and caring for the feeding stations in the rear of the army. In war time the Russian Red Cross does more than the Red Cross of any other nation. Russia began developing the Red Cross in the Crimean War. When the Russian-Japanese War came on, the "white trains" given by wealthy nobles were particularly conspicuous. Altogether, the Red Cross took to the front 3,000 carloads of material and food. The nurses were as efficient at the front as the organization was in forwarding supplies. At the fall of Port Arthur all stray ends of that ugly business were left to them. The Red Cross really did the evacuating. When Mukden was evacuated there were many hundreds of wounded whom it was impossible to move. Surgeons and nurses remained behind with them and were given every courtesy by the conquering Japanese.

The Japanese themselves developed the Red Cross into the best possible field force in a very short time. Taking advantage of the patriotism, the women of all Japan were organized. The nurses and cooks formed one body and went to the front. Another body developed lunch and refreshment rooms, and women everywhere made bandages and helped prepare field outfits. Now the Red Cross operates hospitals throughout Japan, and one out of every forty persons in the empire belongs to the Red Cross organization.

In contrast to Russia's attitude is Germany's limitation on all volunteer nursing. It is contrary to the German character to leave matters of that kind to any chance. It is all worked out methodically by the army medical corps, and the volunteers are held in check. They are used to help expand the regular forces, but they have no such independence of action as they enjoy in Russia.

The French Red Cross has more of the liberties of the Russian. It is a question of national temperament. The French in their nursing make up for lack of drill by the enthusiasm with which they enter into the combat. The volunteer French Red Cross is composed, as in the United States, of the best trained nurses in France. They have no experience in that particular service, but they understand nursing and sanitation. They are organized according to army divisions and do better work perhaps because of their freedom from red tape.

The Italian Red Cross is admittedly the best organized for war, and here again its effectiveness is due to the lack of restraint. The Austrian Red Cross has also been giving a

good account of itself for several years. Its organization is much like the Italian.

Almost every nation was represented in the Red Cross in the Balkans, but the absence of Red Cross organizations in the Balkan states themselves brought about in the first battles suffering to which only the battlefields of the Middle Ages could offer comparison. Stories that came to the outside world from the few nurses present roused the world and made the later battles less awful. The graphic account of twenty-four hours at an operating table in the rear of the Servian army, as told by the Countess Maggiolini, did more for humanitarianism in the Balkan wars than any other single influence.

The Red Cross will probably be even more conspicuous in this war than in any previous one. Where lines are so tightly drawn and the fighting is frequently in a comparatively small area, the crossing of lines and the invasion by hospital corps of hostile territory bring up fine points. It is a question how far the Red Cross may go toward relieving the suffering of the noncombatants without interfering with the brutal purpose of war. There will be charges of violation of the Red Cross, and the extent to which the Red Cross will be permitted to go will depend largely upon the humanitarianism of the individual commanders. Despite its many other activities the Red Cross is always associated with the battlefield. There it has certain coveted rights in the name of humanity, and it never yields any. If anything, it is inclined to stretch them. At its conventions war is always foremost, as it has a perennial discussion as to its rights. Part of the purpose of war is to lay waste the invaded country and make its inhabitants suffer want. The Red Cross stands for the alleviation of suffering wherever found. These two cross purposes constantly clash, and the needs of war generally win. The Red Cross can go no further than it is permitted. It can be only so bold before it is interfered with.

Besides trying to define and enlarge its rights on the battlefields, the Red Cross conventions bring out new inventions for giving better service. The Dowager Empress of Russia contributed a fund of about $50,000 to stimulate the inventive ability. The first prize is of 6,000 rubles, about $3,000, the second of 3,000 rubles, and the third 1,000 rubles. These prizes, known as the Marie Feodorovna prizes, have been won for the invention of a considerable list of handy contrivances — from stretchers which can be changed to meet almost any condition, to handy kits for the uses of nurses in war. They have been awarded for practical things, and the work of the Red Cross in the present war, as well as the work of the medical corps, will be greatly facilitated by the fact that those prizes were given.

When the Geneva Convention was held in 1864 the world had been sickened with the smell of blood. The horrors of war were uppermost in the minds of people. It was possible to gain a wide appeal for the movement. But it was found out before long that work of the Red Cross was not always to the best interests of a conquering army, and this, added to the poor handling of the Red Cross, caused a reaction. In England's various campaigns, particularly in Egypt, the Red Cross met almost violent opposition from the English army officers. It was not until army officers discovered in the Spanish War that the Red Cross could be effectively used for repairing broken men that it began to gain in standing.

From the devoted labors of scattered volunteer nurses, typified and ennobled in Clara Barton and Florence Nightingale, the immediate care of the wounded has become a part of the modern fighting machine. It was found in the last war in the Balkans that it paid as a mere matter of repairing the injured men. Unless a man was mortally wounded or required a capital operation, he was usually back in the ranks fighting in two weeks. The Red Cross had become a repair shop.

Efficiency has come in the Red Cross, as a matter of fact, only with the passing of the compassionate women like Clara Barton. She was frequently alone on battlefields in the Civil War where hundreds lay wounded. She was nothing short of the "angel of the battlefield." The same was true of Florence Nightingale in the Crimea. Those two women made names for themselves that will outlast war. But the movement languished. The American Association of the Red Cross, of which Clara Barton was president for twenty-two years, consisted chiefly of a dozen women. The American National Red Cross of to-day, incorporated in 1905, after Clara Barton's death, has 3,500 trained nurses, all with three years' hospital training, ready to mobilize as rapidly as the army.

If the United States were to go to war the volunteer organization of the Red Cross would in fact be mobilized with the army. This was made possible by an Act of Congress two years ago authorizing the spending of the money. Much the same thing happened when the European armies mobilized. Not only the highly developed hospital corps were immediately behind the artillery, but the Red Cross came in behind as medical reserve fully as well equipped. In most of the armies, in fact, every soldier has had an emergency kit the existence of which was due to the Red Cross movement.

The Red Cross has become what it is in this country to-day largely on account of the unnecessary sickness at Chickamauga during the Spanish War. The modern sanitation campaign carried on since by army surgeons, for that matter, also had its rise in the Spanish War. The cleaning up of Havana led to the sanitation of the Canal Zone. The English learned their lesson in South Africa, although the peculiar unhealthfulness of much of India had

already forced some measures of care. Both the Japanese and Russian armies were followed in the Russian-Japanese War by very good Red Cross corps. They worked together sometimes, in sorting the wounded, and, through the French Red Cross, which was also very active in Manchuria, the names of the dead were listed to be sent back to friends and families. The French Red Cross served as a news agency.

It has all been within fifteen years that the Red Cross has come to play the part it now plays in warfare. It was thirty-five years, following the organization of the international Red Cross at Geneva, in 1864, before it became what it was planned to be. This was almost simultaneous with the discovery in poverty of the man who was responsible for it. Jean Henri Dunant, the Swiss author, the founder of the Red Cross, who stirred Europe with the horrors of war and brought about the international convention at Geneva, was found in an old man's home in Switzerland, in 1897. It was at this time that the Spanish War showed how the development of the Red Cross had been neglected and Dunant began to assume the position in the world he deserved. Four years later, the Nobel Peace prize, given for the first time, went to him and to Frederick Passy. His share of that was 104,000 francs, about $20,000, which, with a small pension from the Dowager Empress of Russia, served him until he died in 1910.

He, with his horrible description of Solferino, and Florence Nightingale and Clara Barton, with their vivid experiences, launched the international Red Cross with much more to go on than it took advantage of for many years. Clara Barton even foreshadowed the industrial activities of the American Red Cross by helping organize workshops in Paris and Strassburg to save the women left destitute by the Franco-Prussian War.

The report of the Sanitary Commission of the Civil War, which raised by voluntary subscription $500,000, was also largely responsible for the shaping of the original Red Cross. The Sanitary Commission used a Greek cross surrounded by an oval band. But the red cross has long ago become standard throughout the world except where the red crescent is used.

Attempts have been made to protect the insignia from indiscriminate use. It is frequently abused in war for scouting purposes and noncombatants adopt it as a shield. There is nothing to prevent it. Even at catastrophes where the red cross serves merely as a convenience in facilitating progress it is usually abused. At the San Francisco fire after three days every automobile displayed the red cross and it came to mean nothing at all. As a result, those who were entitled to use the red cross changed suddenly to the use of a piece of red flannel, and the red cross insignia was not honored.

The slowness of the Red Cross movement to get under way, in fact, was due to the misuse of it. In the Franco-Prussian war it fell into disrepute. Ignorance of the rules laid down by the Geneva Convention was largely responsible. Though it had been carefully laid out just how far the Red Cross could go without being looked upon as succoring the enemy, the volunteer field workers paid no attention. There were also jealousies between the various Red Cross organizations. The Red Cross got such a bad name among military men in that one war that volunteer nursing was discouraged up to the time of the Spanish War.

There is hardly any chance that there will be any accidental complications of this kind in the present war. The Red Cross may be deliberately used to get information or to advance supplies, but the volunteer organizations are so completely in hand now that they act under the orders of the military surgeons. The Red Cross is to the armies of the world now what the volunteers are to the regular army. It is officered by army surgeons and becomes a part of the army sanitary body.

A dispatch dated Washington, August 6th, said: "Committees of the American National Red Cross to-day were at work on plans to rush aid to the sick and wounded in the European war. Surgeon-General William C. Braisted and a party went in search of a ship to carry doctors, nurses and hospital supplies across the Atlantic, and others were receiving and disbursing funds for supplies.

"The ship will be painted white with a red cross on the funnels, and will sail under the Red Cross flag. She will also be under the treaties of Geneva and The Hague, and will be able to enter any harbor."

The American Red Cross has played a leading part in alleviating the suffering caused by every kind of catastrophe, except war, during the last ten years. Even in war it has done its part, especially in Turkey, feeding and clothing the noncombatants when the Bulgarians made their spectacular dash at Constantinople. From the plague in Manchuria to the Triangle Building fire in New York, the American Red Cross met the emergency. But when it came to general European warfare, every army had worked out a complete Red Cross system.

The American Red Cross did not jump directly into the field in Europe because there was no place for it. It would not fit in. It could be useful only as an organization handling and forwarding supplies. But once the armies are disorganized or the initial organization is broken up by defeat, the American Red Cross, or any body of foreign nurses, could do as good work as the nurses of the country.

At present, however, the Red Cross societies of the warring nations, with the same sympathy and heroism that prompted Florence Nightingale and Clara Barton, and with modern organization and effectiveness, are caring for the sick and wounded on the stricken fields of Europe.

THE EFFECT OF THE WAR ON THE UNITED STATES

AN ERA OF HIGH PRICES — A RISING COST OF LIVING — INTERRUPTED TRADE AND IMMIGRATION — BUT ALSO AN OPPORTUNITY TO TAKE THE COMMERCIAL AND FINANCIAL LEADERSHIP OF THE WORLD

BY

CHARLES FREDERICK CARTER

LIKE the rain, the penalties of a great war fall alike on the just and on the unjust. Although the United States is innocent of blame for the present conflict (with all the parties to which we were, and still continue to be, on terms of impartial friendship) the Nation has already paid a heavy toll because of the war, and it will be obliged to pay an increasingly heavy one as time goes on.

First came the great demand for gold for export and an endeavor by European investors to realize on American securities at any price, that compelled the shutting down of the stock exchanges. Financial and commercial operations on a large scale were reduced to the lowest limits pending the taking of necessary precautions against total demoralization. Business everywhere felt the shock keenly.

Foreign trade was practically brought to a standstill. The sea-borne traffic of the world is carried in a fleet of approximately 31,000 vessels having an aggregate capacity of 47,000,000 gross tons, in round numbers, of which Great Britain owns 40 per cent., Germany 11 per cent., France 5 per cent., and the rest of the nations at war enough to bring the aggregate to nearly two-thirds of the grand total. Barely 10 per cent. of our foreign commerce is carried in American ships, and on the north Atlantic we have but a single line of four venerable vessels. With hostile warships scouring the seas, the owners of commercial craft naturally prefer to keep their ships in some safe port. This applies not merely to the north Atlantic trade, but to the traffic with the West Indies, South America, Africa, the Far East, and Australasia. Until one side or the other gains the mastery of the sea, or until we can provide ourselves, by purchase, with a merchant marine, under the new law, the embargo on commerce must continue. Some of the finest vessels in the trans-Atlantic trade were built with the aid of governmental subsidies on condition that they should be converted to military use in case of war. These will not be available for commerce in any case until the war is ended. The situation may at any time be further complicated by blockades, so that the acquisition of vessels of our own would not help us out altogether.

The embargo on shipping and the dislocation of the exchange market caused congestion of wheat at the ports, which reacted upon the railroads and thence to the farmers in the West. The stevedores and longshoremen were the first Americans to suffer from the consequences of the war, but in a very few days the effects had spread over all the country.

A still more serious aspect of the situation is that the nations at war are our best customers. Of our total exports, amounting in 1913 to $2,465,884,149, these warring nations took $1,190,463,425, sending us in return goods valued at $709,498,110. In other words, 44 per cent. of all our foreign trade is with those nations which are now at war. Practically the entire able-bodied male population in all these countries has been withdrawn from industrial pursuits, leaving only women, children, and old men to do whatever useful work is done. The women of Europe are accustomed to doing much of the drudgery, because even in time of peace all able-bodied young men are compelled to give at least three of the best years of their life to the army; but there is a limit to what the women can do. The purchasing power of these nations has already been reduced to the lowest possible figure, and it will continue at the minimum for a long period after peace has been declared. Our trade must decline because there will be fewer people with whom to trade. Some industries will doubtless be seriously affected, others to a lesser degree, but thousands will be thrown out of work, while the cost of living increases, and the Government, deprived of customs duties, may be obliged to levy a war tax, which will make things still more uncomfortable for the American citizen who has no part in the quarrel.

Whatever the seventeen million men who are trying to kill each other, and their families may do without, at least they must have food. It happens that although the wheat crop of the rest of the world is short about 438,000,000 bushels, or 14 per cent., that of the United States shows an increase of 148,000,000 bushels. The corn crop is 187,000,000 bushels larger than a year ago, and the oat crop is 31,000,000 bushels larger. The total increase in the three

great cereals over last year is 366,000,000 bushels. This surplus we shall be able to dispose of at prices that have already advanced materially and that are pretty certain to go still higher. This is all very well for those who have grain to sell; but, unfortunately, we cannot have one price for foreign customers and another for the home market. There are more consumers than producers of cereals, so the great majority will find nothing agreeable in the increased cost of grain and flour.

There is another consideration. Though our exports of foodstuffs for the year ending June 30, 1914, totalled $430,296,666, we imported $475,070,689 worth. In other words, we are unable to feed ourselves, but must go out into the world's markets and make up the shortage in provisions at the same increased prices that others pay.

The tariff was taken off sugar for the benefit of the consumer. But an important part of the world's supply of sugar comes from beets grown in the countries now at war. It is uncertain whether the present crop can be harvested or not. On the prospect of a shortage sugar advanced a cent a pound to the consumer before the war was a week old. Meat, butter, eggs, cheese, and other articles of food also promptly started to climb. Steel advanced a dollar a ton. Many chemicals, drugs, and innumerable other manufactured articles come almost wholly from the war zone. The opening of hostilities promptly cut off the supply. As it is extremely uncertain when this source of supply will again be available, or when, or to what extent, American manufacturers will be in a position to supply the demand, the consumer may confidently count on paying fancy prices for all these articles or going without them.

Germany supplied an important part of the fertilizers used on American farms. If this supply, now entirely cut off, is not forthcoming when needed, the result may be a decreased production next year which will offset any benefit the farmers affected may gain through increased prices for their crops.

In short, there is no lack of ways in which to collect from America the penalty for Europe's crime. The penalty has been passed along to the average man everywhere in the form of a prompt increase in the cost of living, with the comforting assurance that the increase is likely to go on indefinitely. In all probability there will be a temporary slowing up in all lines, which will make dollars scarcer for the average man at the same time that the purchasing power of the dollar is shrinking.

Another very serious result of the war will be to shut off the supply of foreign capital. America has always been a heavy borrower, and could continue to borrow with profit to herself. The railroads alone need billions in the next few years if they are to be developed on a scale that will allow the country to grow. But after such a titanic struggle as is now going on Europe will be hopelessly bankrupt. No matter who wins the nominal victory all the nations involved will be the real losers, and their neighbors will suffer to a lesser degree. Countless billions in capital and property will be destroyed utterly, and the best lives of the countries will be wiped out by scores of thousands. It is, obviously, impossible to make any sort of guess at the number of lives to be lost, but perhaps past experience may serve as a guide in appreciating the awful cost in blood. The Japanese death rate in the Russian-Japanese war on the battlefield, from wounds and from disease, was 79 per thousand per year. Assuming that the nominal strength of all the nations, amounting to 17,000,000 men, is actually called out, and that the war lasts one year, the death roll would total, at the Japanese rate, 1,343,000. Whatever the number of lives cut off before their time may be, the productive power and purchasing capacity of the nations will be reduced by just that much. To this must be added the productive capacity of other scores of thousands doomed to drag out the rest of their lives as hopeless cripples or invalids, unable to take care of themselves, to say nothing of caring for others. Finally, the birth rate will be reduced by all these horrors, so that altogether the warring nations will be set back many years in the march of progress. Taking all these things into consideration, it must be conceded that our trade with Europe is not likely to be what it has been for some time to come.

All this is but the climax to a ruinous drain that had continued until the world was suffering from a famine of capital. The belligerents had been spending upward of a billion dollars a year in preparation for war, which was the best possible way to make war inevitable. This vast expenditure served no useful purpose, but, together with the earning capacity of four million men withdrawn from useful labor to serve in the armies, was as utterly lost as if it had been sunk in the depths of the ocean. Besides this, financiers had just completed the task of raising considerably more than a billion dollars to foot the bill for the wars in the Balkans, added to which England was still paying interest on a debt of more than a billion dollars incurred in the Boer War. The economic convalescence of the nations must be slow, because they were financially anemic before the war began.

Still there is a streak of silver, even in this sombre cloud. The warring millions will have to be fed and clothed somehow. At whatever sacrifice, they will have to raise money with which to buy the necessaries of life, and to a large extent they will have to buy from us. They must find some means of getting provisions across the sea, if they have to send a whole fleet of battleships to convoy each freighter. Also, the rest of the world must turn to us now for the manufactured goods formerly purchased from the warring nations. A little more than half our foreign trade last year was with nations not directly concerned in the war. There is now a chance for us to obtain the bulk of the

trade Europe formerly enjoyed with these nations. The prompt action of New York bankers in establishing a sort of international clearing house to offset the collapse of all ordinary foreign exchange indicates a disposition to take advantage of the opportunity.

Indeed, some of the ablest financiers now assert that the present situation is this Nation's great opportunity if we but have the wisdom to grasp it. We can become the leader of the world in industry, commerce, and finance if we will, so these far-seeing men aver. In order to do this we must economize. The rich have been economizing in recent years, but the farmer and the workingman have been growing ever more profligate. As the second step toward world leadership they say we must enact the trust bills over which Congress has been deliberating all summer. Everybody knows there are underlying evils that need to be cured, and which these bills are intended to cure. They may not be perfect measures, but at least they make a beginning and they can be improved later as experience may suggest.

One effect of the present situation will be to compel us to finance our own ventures, since we can get no capital from Europe. The bankers say we can do it.

Another effect of the war will be to cut off immigration. Naturally, no man capable of bearing arms will be allowed to leave any of the nations involved while hostilities last. Afterward they will be even more urgently needed than they are now. This will not be a serious drawback, because there is labor enough here now to meet the demand, though the restriction of cheap labor will check the wasteful development of natural resources and compel the conservation of which so much has been said, but toward which so little has been done.

Another effect will be to compel the United States to provide its own merchant marine so that we may no longer be dependent on foreign ship owners to get our products to market. The Administration has already perceived this, and has begun the task of modernizing our archaic shipping laws.

Another effect which will inure to our benefit is that we will be compelled to manufacture our own cotton instead of sending so large a portion of it abroad to be manufactured.

CARING FOR THE SOLDIER'S HEALTH

REDUCING THE LOSS FROM SICKNESS AND WOUNDS — BUSINESSLIKE HUMANITY — BURYING 140 MEN AN HOUR

SOLDIERS who escape death on the battlefield in the great conflict now going on will have a far better chance of returning home alive than any soldiers ever had before. It must be remembered that in all previous wars the real enemy was not the one with gun in hand under the opposing flag, but disease, which mowed down troops on both sides impartially. It has taken the world a long time to grasp so obvious a fact, but the lesson has been thoroughly learned at last, and it has been applied in all civilized armies.

Sick soldiers of an earlier day received no attention whatever. If the wounded received any care it was from a comrade or from the women who followed in the wake of the army. Then the barber became the army surgeon, when there was any, to give way later to monks. Napoleon paid little or no attention to sick and wounded. In the Peninsular campaign about 60,000 French soldiers were killed in battle in Spain, and about 400,000 died of disease. In the Russian campaign of 1812, of 500,000 who crossed the Dneiper in June scarcely 20,000 returned in December. Bullets killed some, to be sure; the deadly cold claimed others; but the great majority perished of disease. The 1813 campaign after Leipzig was no less disastrous. Of an army of 100,000 that left Leipzig in October only a few fragmentary battalions followed the eagles across the Rhine in November. The total ruin of this army was due to sanitary neglect. Soldiers died of disease by thousands, scattered among the villages along the route from Germany, leaving pestilence in their wake.

In the Crimean campaign 230 out of each 1,000 British soldiers died annually of typhoid fever, dysentery, and other infectious diseases.

In the Franco-Prussian War in 1870-71, the annual death rate from disease among French troops was 140.8 per thousand; among the Germans, 24.5.

In the Boer War, lasting two years and eight months, 5,774 British soldiers, in a force having an average strength of 208,326, were killed in battle, and 2,108 died of wounds, a total of 7,882, or about 14 per thousand a year. Disease claimed 14,210, or 25.58 per thousand a year, which was almost double the number slain by Boer bullets. The total death rate was 39 per thousand a year, and the total wastage, including invalided, missing, and prisoners, amounted to 40 per cent. of the total strength of the army annually. Nearly 3 per cent. of the total strength was constantly sick.

In the Russian-Japanese War, which lasted

twenty months, the number of Japanese alone, in killed and death from wounds, averaged 54 per thousand a year. Disease claimed 27,142, or 25 per thousand a year, a showing no better than that made by the Germans in the Franco-Prussian war.

The foregoing figures serve to give an idea of the magnitude, as well as of the character, of the task confronting the medical staff of the modern army. All the world seems to have realized after the Russian-Japanese War the absolute necessity of caring for the health of troops in the field. Soldiers are no longer regarded merely as "food for cannon," but as valuable property belonging to the State, which it is good business policy to care for with at least as much pains as are bestowed on other war material.

In the last ten years the medical staff of every army has been completely reorganized and brought up to date. In every language elaborate treatises have been written on the proper methods for preserving the health of troops and for taking care of the wounded with a view to returning them to the ranks as soon as possible. Text books containing "problems" are prepared for the young military surgeon who aspires to promotion, so that he may become skilled in the art of providing for large numbers of wounded under various difficult conditions, on paper at least. The most minute studies have been made of every detail in the daily life of the soldier in barracks, on the march, in battle, and after he has been wounded.

The first department of the army with which the prospective soldier comes in contact is the medical staff, which examines all applicants for enlistment and decides whether they shall be accepted or rejected. In England, the only country now at war in which military service is voluntary, the physical examination is rigid and the percentage of rejections is high. Even in those countries in which military service is compulsory and universal the unfit are excluded from the ranks. The volunteer, or the unwilling youth who reports for his compulsory tour of military duty, who is accepted as a recruit is never thereafter free from the watchful care of the medical department until he is discharged or dies and is buried under the direction of that department.

The medical staff prescribes, or at least modifies, the exercises and setting-up drill for the raw recruit to make sure that he is not overworked; for in Europe the young recruit is likely to have been underfed. The medical department makes a point of feeding up these weaklings while it begins their physical education. Hygiene is now all-important in the military world, for the fact is recognized that it is much cheaper to keep the soldier well than to cure him after he becomes ill. Besides, the commander wants a fighting force, not a hospital population.

Thanks to vaccination, typhoid fever is becoming a negligible element in the military organization. The United States army leads the world in the extent to which this preventive is used, and France is foremost in this regard among European nations. Owing to the great numbers in continental armies, typhoid vaccination is proportionately less used than in this country; but American military surgeons predict that if the war is prolonged all the troops will be inoculated against their deadliest foe. Vaccination against smallpox is practically universal. Besides these there are numerous infectious diseases for which vaccine therapy has, as yet, provided no remedy; and these cause the army medical officer no end of trouble. Soldiers seem prone to mumps, measles, and kindred ailments, which run through a camp or a garrison as through a boarding school.

The medical staff is consulted about the soldier's clothing, and especially about his shoes; for if these are not properly made he becomes footsore on the march. England, like the United States, provides socks for her soldiers; but troops on the Continent, if they want such luxuries, must buy them themselves. Germany, by unanimous consent, is conceded to provide worse boots for her troops than any other nation, though improved footwear has recently been adopted.

Extraordinary care has been bestowed upon the soldier's ration. Since the work men and steam engines can do depends upon the amount and quality of fuel fed to them, the continental soldier is nourished as carefully as a locomotive is stoked by an expert fireman. The army medical staff of each nation has made exhaustive experimental studies in order to arrive at the proper quantity of food required by the average individual to do the average day's work for a soldier. This amount is measured in calories, which is the standard heat unit used by physicists, a calorie being the amount of heat required to raise the temperature of a kilogram of water from zero to one degree Centigrade.

The Russian soldier either requires more food than other men, or else he is blessed with a more liberal government, for his daily field ration amounts to 4,929 calories. The French soldier is the next best fed, his daily field service ration providing him 3,340 calories. England ranks third with a field ration of 3,292 calories, and the Dual Alliance is at the bottom of the list, the German ration being 3,147 calories, and the Austrian only 2,620 calories, or but little more than half the Russian ration. From the military surgeon's point of view this inferiority in rations bodes no good to the Dual Alliance.

The British ration is not much different from that of the American soldier, consisting of a pound of bread and three quarters of a pound of fresh meat with bone, or seventeen ounces of preserved meat when in camp or abroad. In addition to these staples, he is allowed a messing allowance of twelve cents a day with which to purchase vegetables and the like. For service in the field, the French and Germans use to

some extent tinned meats put up with vegetables and consommé. In some of their African campaigns the Germans found that contractors, with a view to economy, had filled the tins chiefly with water; so now the Government puts up its own tinned meats for army use.

Food may contain proteins and carbohydrates in the proper proportions and be in good condition, yet so unappetizing as to cause aversion, or even loathing; so the army medical officer must see that the troops have the proper condiments to season their food and that it is well cooked. For this purpose they visit the men at meal time. Only last year the sanitary chief of the French Army reported that the food of the soldier had been most carefully considered and regulated with proper regard to obtaining the highest efficiency from the individual fed on a scientific diet. Since 1905, when the doctors recommended a better cooked and more varied diet, a system of instruction in cookery had been introduced in the army with gratifying results. One of the results is a death rate in time of peace of only 3.75 per thousand as compared with a fraction more than 20 for the nation, and 8 per thousand for the civilian population between the ages of 20 and 22.

The motor omnibuses, familiar to visitors to Paris, are now being used, with wire screens replacing the windows, to convey fresh meat to the French troops in the field. One of these vehicles can haul a load of two and a half tons of frozen beef imported from Argentina, or fresh killed beef from the herd, about forty miles back from the front.

To wash down his carefully measured dose of proteins and carbo-hydrates the English soldier is allowed twenty-two hundredths of an ounce of tea daily. On the Continent the average soldier prefers coffee. The French soldier is provided with a coffee mill; but the Germans, at least in some of their African campaigns, had to use the butts of their rifles, which proved to be a very poor substitute for a coffee mill.

From the military surgeon's point of view, water is even more important to the soldier than food. The classic example illustrating the consequences of a hard march without water is Napier's description of the march after Sauroren, when "many fell and died convulsed and frothing at the mouth, while others whose spirit and strength had never before been quelled leant on their muskets and muttered in sullen tones that they yielded for the first time."

It is an axiom among mountain climbers that "the more you drink the farther you go." The soldier is not allowed to drink whenever he pleases. On the contrary the medical staff insists that water discipline is as essential as firing discipline. They say a man is not allowed to expend a single round of ammunition without authority, and that he should not be allowed a drop of water without specific permission while on the march. Indeed, in some native regiments in India, the water bottle is carried so its owner cannot reach it while marching. He can get a drink only when halted for that purpose.

The time for drinking and the quantity to be allowed have been carefully calculated on a scientific basis. It has been found that the evaporation of two grams of water abstracts one calorie from the body and that the average expenditure of energy per man in marching is 90 calories per mile, which is equivalent to the evaporation of 180 grams of water. In six miles the evaporation amounts to one litre, or $1\frac{3}{4}$ pints, or, say, one-fortieth of the water in the body, which is about as much as should be lost without replacing, if full vigor is to be maintained. But as it takes a march of about three fourths of a mile to raise the temperature to the evaporating point, the military surgeon calculates that the men should be halted after marching the first seven miles, when they should be allowed the contents of their water bottles, which hold one litre. After that they should be allowed one litre every six miles. In the German Army during manœuvres mounted officers, or orderlies on bicycles, are sent ahead of a marching column to warn the inhabitants of villages to turn out and have water ready on both sides of the road for the troops. If possible a short halt is made while the men refresh themselves; if time presses they must snatch a drink as they pass and if they can manage it, they also fill their water bottles.

The medical staff is keenly interested in the equipment the soldier carries and the manner of its adjustment; for every pound added to his load means the expenditure of energy at the rate of 4.5 small calories a minute, and an awkwardly placed load may interfere with his breathing, or do some other mischief.

Foreign writers pay the American army the compliment of saying that it has the best selected and best managed equipment in the world. Something appears to be wrong with all other equipment and the way it is carried, according to medical writers on the subject.

Here is what every soldier must carry about with him all the time while in the field: a rifle, weighing about 9 pounds, with bayonet, cleaning materials for keeping his gun in order, ammunition, and an entrenching tool; his clothing, including coat, trousers, puttees, boots, neckcloth, handkerchief, a change of underwear, identification disk, and first-aid dressing; food, including one reserve or emergency ration, or, in the case of the Germans and Austrians, two reserve rations, and in the case of the Russians two and a half; water bottle, mess tin, knife, fork and spoon, though the Russians carry merely a wooden spoon stuck in the boot in lieu of these refinements; accoutrements, including knapsack, belt, and braces; a great coat, and half a shelter tent, 4 x 6 feet which, upon being buttoned or hooked to another half carried by another man, forms a shelter for the two; personal necessaries, including toilet articles and spare linen. In the case of the British soldier this totals 47 pounds; in the case of the Ger-

mans, 38 pounds, and the French, 44 pounds. These lighter weights are due to the fact that the French and Germans carry fewer rounds of ammunition than the British soldier, who never has less than 150 rounds. The Russian soldier has the heaviest load of all to carry, 61 pounds; or, when he sets out with four days' rations and extra ammunition, 72 pounds.

The medical department also prescribes rules for the sanitation of the camp, disposal of waste material, and sees that public as well as personal cleanliness is enforced.

Though it finds its sphere of greatest usefulness in maintaining the troops at the maximum of physical efficiency, thereby contributing directly to their fighting effectiveness, the medical department has a second important function, and that is to relieve the field force of the incumbrance of sick and wounded. In this work the authority of the medical director, or chief surgeon, is supreme. In time of peace the medical department has constantly under its care from 3 to 4 per cent. of the entire force; in war, more than twice this proportion. The department must provide everything required for the well-being of the men, their medical and surgical treatment, food, clothing, and transportation, from the time they fall out of the ranks till they return.

Every soldier carries, in a sealed tin box, a first-aid packet, consisting of a bandage, gauze, and adhesive plaster. If the wound is but slight and in an accessible place the soldier may apply the dressing himself; if more severe, a comrade may apply it for him. The importance of this first-aid may be better understood when it is said that infection is the most frequent cause of death from wounds not immediately fatal. This first-aid serves the double purpose of preventing infection to a large extent and of checking hemorrhage, which ranks third in causes of death from wounds, shock being second. Military surgeons say that the great majority would recover from gun shot wounds if infection could be prevented. The fate of the wounded is in the hands of the man who applies first aid.

The wounded soldier, with or without first-aid dressing, passes back to the rear by way of dressing stations beside an ambulance in a spot that is more or less sheltered from hostile fire to the field hospital. As soon as he can stand transportation, he is passed on to the general hospital, and thence in due time to the convalescent camp to recuperate. A large proportion of the wounded require transportation by litter and ambulance to the field hospital, which is located as near the firing line as prudence will permit.

Though the medical staff of no two nations is identical, it may be said, in a general way, that equipment is provided on the theory that 10 per cent. of a division will be killed or wounded in a single battle. If the number engaged is 18,000, 20 per cent., or 3,600 will be dead on the field; 8 per cent., or 1,440, will be so severely wounded that it will be inadvisable to move them; 40 per cent., or 7,200, will be able to walk, one half of them to the station for the slightly wounded at the rear, the rest to the dressing station, and 32 per cent. will require transportation. In recent wars the mortality among the wounded collected and transported to the rear has averaged from 3 to 6 per cent. In the Manchurian campaign, one third of the wounded Japanese returned to the ranks within a month.

In deciding on his arrangements for a battle, the chief surgeon bears in mind that the wounded will be distributed in "zones of losses." The usual proportion of wounded is 20 per cent. up to 1,000 yards range; from 1,000 to 400 yards range, 60 per cent.; in the final rush 10 per cent; in pursuit, 10 per cent. The field hospital is not pitched till the tactical situation develops and the point where the main attack is to be made is known. Then a site is chosen beyond range of the enemy's fire, accessible to front and rear by road, yet off the route of march of advancing troops, convenient to wood and water and, if possible, near buildings which may be used for the overflow of wounded, for, of course, casualties in battle are not limited by rule, and the facilities provided may be overwhelmed. Conditions on the battlefield are all unfavorable for clean surgical work, and it is often impossible to reach many of the wounded for hours. The results achieved by modern military surgeons under the difficulties inherent in their work seem little less than miraculous.

A pleasant fiction widely credited is that men have been studying for years to make war more humane — as if war could be humane! For example, one of these "humane" devices is the small bullet at high velocity. Stories are told of men who, after being shot through the chest or head with a modern bullet, about the diameter of an ordinary lead pencil, have walked long distances to the dressing station and have then recovered in a miraculously short time.

Military surgeons who have seen actual service tell a different tale. It is true that really slight wounds made by modern bullets heal more quickly and thoroughly than in former days. But severe wounds are no less severe and much more frequent.

The Germans use a steel-jacketed bullet with a core of lead hardened with antimony. The steel jacket frequently comes off in jagged fragments which horribly lacerate the flesh.

The French bullet, a mixture of copper and zinc, is not jacketed, but is longer and sharper than the German bullet. Bent by ricochetting, it often enters the body as a hook; sometimes it "tumbles" and enters broadside on, making a long, gaping wound. Up to a range of about eight hundred yards one horror is as bad as the other. These "humane" bullets have three general effects: up to a range of 500 yards they have an explosive effect, splintering the bone so thoroughly as to explain the frequent accusation that explosive bullets have been used; at ranges of 500 to 1,500 yards the effect is com-

minutive, grinding the bone to powder, and not infrequently carrying with it into the wound fragments of soiled clothing, thus causing gangrene. The third effect is contusive. A bullet fired into an empty metal vessel enters and leaves by a small hole. Fill the vessel with water, and the bullet will still enter by a small hole, but will make a large, jagged wound in leaving. The bullet has exactly the same effect on the body or the head. In any case the bullet strikes a heavy blow as with a club.

Modern bullets are "humane" only when compared with the effects of shells, and it must be remembered that a far greater proportion of casualties are due to shells than ever before. In the Franco-Prussian War, shell wounds were 91 per thousand; in the Manchurian campaign the ratio had increased to 176 per thousand, and in the Balkan War of 1912 the proportion was 364 per thousand. The Russians in Manchuria called shrapnel "the devil's watering-pots." When they burst they scatter hundreds of round bullets as well as fragments of the shell itself. They are most deadly within a radius of ten to thirty yards, but even at a hundred yards the "dewdrops" are lively enough to penetrate six inches of pine. The common shell is still more terrible. The fragments, heated to a very high temperature by the explosion, burn the flesh so as to compel cries of agony that only morphine can quiet. The large shells of the navy not only cut like razors, but asphyxiate, amputate portions of the body, and crush. Altogether, the experienced military surgeon is not unduly impressed with the "humane" aspects of war.

The last service rendered to the soldier by the medical department is to see that he is promptly buried after the battle; for as he has now become rubbish, or waste matter, his disposal is properly a part of the sanitary work of the medical staff. The widow and orphans, waiting at home until anxiety deepens into dread, and dread into despair, may be able to form some estimate of the reverent care with which this last rite is performed for their loved one, "humanely" killed by modern methods, when they know that the chief surgeon, according to the standard authors, counts on a burial squad of five hundred men disposing of 140 bodies an hour, after the bodies have been collected.

A CHANCE FOR AMERICAN SHIPPING

POSSIBILITY THAT THE UNITED STATES MAY CAPTURE SOME OF THE GERMAN CARRYING TRADE — ENGLAND LIKELY TO HOLD HER OWN — CONTROL OF THE SEA THE DETERMINING FACTOR

BY

SYLVESTER THOMPSON

MANY Americans have found one pious hope in the present European struggle: that it might stimulate the long deferred building of an American merchant marine. Apparently American enterprise has here a fairer opportunity than millions spent in subsidies could provide. The great carrying nations no longer sweep the seas. There are just about as many cargoes, however, to be carried; why should we not carry them? — carry them not only for the few months the war will probably last, but for all time? The United States apparently occupies the position of a commercial house whose chief rivals have suffered reverses that amount to a practical suspension; ordinary business sense would spur us to take over their business. Not only our business enterprise, but our position as a shipping country, should lead us to do this. The American who first glances at the figures of the world's shipping has something of a shocked surprise. He has heard so much about America's decline on the sea — about the possibility of sailing around the world and never seeing the American flag at a masthead — that he naturally regards himself as belonging to a nation of landlubbers. In fact we are the second largest shipping nation in the world: England ranks first, and Germany makes not a particularly respectable third. The actual figures are 16,541,000 tons for England, 7,886,000 for the United States and 4,593,000 for Germany. But the disturbing fact about our large shipping industry is that it limits practically all its activities to the Great Lakes and our two great coast lines. Nearly all English and German shipping goes over seas; nearly all of ours stays at home. Our shipping, therefore, helps us out little in the present crisis. Possibly a few of these lake and coast vessels might be transferred temporarily to the transatlantic lanes; for the most part, however, they have plenty of employment in their accustomed waters. Shipping them to the high seas would cause a complete disorganization of coast and lake commerce; demoralize it as completely as the present ocean traffic is demoralized.

American maritime history discloses a series of ups and downs; accidental causes at times

have built up our mercantile marine, at other times have destroyed it. We were not much of a sea-faring people in colonial times; the policy of Britain always aimed at keeping this valuable business in the hands of Englishmen. But national independence swept aside all these antiquated navigation laws. The year 1790 saw the young United States with practically no mercantile marine; Englishmen were then our carriers, just the same as they are now. The first year of the century witnessed a change; we were then carrying 80 per cent. of our own products in American bottoms. By 1810 we were carrying 90 per cent.; a few years afterward we were carrying not only our own, but a considerable part of the world's. And then followed one of the most splendid periods in American commercial history. As a maritime nation America led the world; we held the position as a carrier that England does now.

What had caused the sudden rise of America as a great maritime power? This question has the utmost interest in view of the present situation. For the conditions that faced Europe in the early part of the nineteenth century strongly resemble those which face it now. It was the era of the Napoleonic wars. These struggles had one effect, practically identical with that we are witnessing to-day — the utter demoralization of European commerce. England and France were constantly preying upon each other's mercantile marine, the result being that the ships of both nations no longer felt secure upon the high seas. Both, as great maritime people, suffered a tremendous decline. Herein was America's opportunity, and splendidly she seized it. As a consequence — and here is another point that has a present practical application — we retained this sea supremacy after the Napoleonic era closed. The years from 1830 until about 1855 represented the greatest glory of the American merchant marine. By the time the civil war started, however, the decline had set in; by the time the war was ended, the greatness of our shipping, although the famous American clippers still sailed the seven seas, had disappeared. Authorities differ as to the cause of this change. A considerable number attribute to the civil war itself. The fact is, however, that our shipping had begun to decline several years before the civil war. By 1855, as already said, its greatness was a matter of history. A new material found use in the construction of vessels — iron. When this substance supplanted wood in ship building the knell sounded for the American merchant marine. There was then practically no American iron or steel industry. England, on the other hand, had greatly developed its iron resources. There was only one way, in those days, in which we could still maintain a standing at sea; that was by purchasing the new fangled ships in Europe, mainly in England. But this the law forbade. No ship that was not constructed in the United States could fly the stars and stripes. However, this idea, and the many others used to explain the disappearance of American foreign shipping, are now purely academic. The one fact is that, although Americans have built up a large mercantile marine in their own waters, they have practically none on the high seas. We annually pay about $200,000,000 to foreign nations for the transportation of our products.

It is not surprising, therefore, that many should see in the present European conflict a chance to regain our marine supremacy. We did this when Europe was convulsed with the Napoleonic struggle; why should we not repeat the performance now?

One or two considerations at once come to mind that apparently discourage such an enterprise. The Napoleonic wars, for example, lasted a long time — about fifteen years. This is long enough to permit pretty radical and permanent readjustments. It gives plenty of time for the creation of a mercantile marine, and for the establishment of new trade relations. The present large shipping interest of Germany is little more than a matter of twenty-five years; a generation ago Germany had to go to England for her warships. No one believes, however, that the present conflagration will last fifteen years, or anywhere near that long; if it lasts fifteen months, most observers will be surprised. The creation of an independently constructed American marine fleet, therefore, is not likely. Before we could actually launch any new ships, the war would be ended. One fact, therefore, is at once apparent. The commerce of the world has got to use such shipping facilities as it now possesses. About 15,000 ships now furnish the world's marine transportation. These ships will contrive to do so throughout the war, and probably for some time afterward. They may change their flags or their ownership; if they are kept off the high seas, however, the business of mankind will largely stop and many millions of people will starve to death. One can imagine what would happen to the United States if all our railroads stopped running. That is precisely what is happening now, so far as maritime commerce is concerned. Forces are already at work to put an end to this paralysis; and these efforts must succeed.

An analysis of foreign shipping by nationality will simplify the situation. Take, for example, American exports last year, and the nations that carried them. We find that

60 per cent. were shipped in British vessels
15 per cent. were shipped in German vessels
9 per cent. were shipped in American vessels
4 per cent. were shipped in French vessels.

These figures bring out, as do all other similar statistics, the tremendous leadership of British foreign shipping. It not only surpasses that of any other country; it is greater than that of all the other countries combined.

If the American people are going to carry most of their own commerce in this war they must get not only Great Britain's business but Great Britain's ships.

EVERYTHING DEPENDS ON SEA POWER

Before that happens, however, certain important preliminaries must be settled. From whatever point of view we survey this war, we invariably come back to the same point. It all hinges upon one thing: the control of the sea. With the English navy dominating the situation, England probably cannot lose. With the English navy destroyed, England's surrender would come within a few weeks. And this question of sea supremacy has the most important bearing upon the question of the possible boom in American shipping. If England destroys or effectively bottles up the German fleet, there is no reason why she cannot resume the greater part of her shipping. Her vessels can carry nearly 60 per cent. of our commerce this year, as they did last. The only possible danger is an occasional capture by German cruisers. This danger is so slight, however, that it can be practically disregarded. England has nearly 10,000 vessels engaged in commerce. Where can Germany get any warships to prey upon this enormous fleet? She cannot detach them from her main squadrons. After all, the chief business of warships is to destroy the enemy, not to destroy its commerce. Every cruiser that is taken from the battle line will weaken a force already enormously outclassed.

Supposing there are a few German cruisers prowling the ocean, what will happen to them? England's fleet is so large that she can easily set aside a few warships to destroy them. If she does not do so, where are they to get their coal? Where are they to take their prizes, in case they capture them?

It is possible, again, that the English Government may press into the navy part of the merchant marine. But, with 10,000 ships, a good many can be used this way without materially decreasing its efficiency.

GERMANY'S SHIPPING OUR OPPORTUNITY

Most naval authorities believe that England and France will secure the command of the seas. At the present writing the indications are that the great German high seas fleet is bottled up. Again the English Government has assumed the insurance risk on British shipping. It practically says to the shipowner: "Go to sea with your cargo; if you lose it, the government will reimburse you." These and other considerations apparently dispose of the idea that Americans can supersede England on the high seas as a result of this war.

If these predicted events come to pass, however, there still remains the question of German commerce. With the British fleet controlling the situation, Germany's mercantile marine, for all practical purposes, will cease to exist. Germany carried 15 per cent. of our commerce last year, against England's 60 per cent. Small as this seems in comparison with her great rival, this still represents a prize well worth striving for. Herein unquestionably lies the real American opportunity. Under normal conditions the sudden wiping out of Germany's mercantile marine would mean one thing; that England would capture it. But, with a tremendous war on her hands, England is not expanding her industries in any direction. The war expenses have so strained her credit that she would have the utmost difficulty in financing any new shipping enterprises. The same statement applies to France, the only other nation that could possibly step into the breach. The opportunity, in all its aspects, therefore, seems made for the United States. Germany now has about 2,000 ships, most of them engaged in the foreign trade. The present likelihood is that most of these will stand useless at the docks during the war. They represent a very large investment; how large there are no available statistics to show. Their loss of earning power will sadly inconvenience their owners, especially if the war is continued for any period. The companies will be so badly crippled that it will take them a long time to recover, when peace returns. In many cases offers to purchase would find a ready response. The extent to which America profits from the promised stagnation in German shipping depends upon the extent to which our capitalists stand ready to purchase these vessels. Congress will doubtless pass the legislation required to permit their transference to the American flag. There seems little likelihood that friendly nations, like England, will refuse to recognize this transfer, so long as it is actual and represents a permanent ownership. If the present aspirations materialize shipping acquired in this way would not represent a temporary, but a permanent holding. It would be the beginning of the long hoped for American mercantile fleet on the high seas. It is true that the removal of this prohibition on the purchase of American ships would take away only one disability that prevents our competing with Europe. The others are the higher cost of iron and steel and labor here and the higher cost of navigating. The first disqualification is rapidly disappearing. If we can make steel rails and compete with England in all the markets of the world, we can do the same thing with plates for steel ships. We still pay our workmen higher wages, but we have the compensation of an increased efficiency. Only one difficulty still remains in the way of building up an American marine. Our sailors get about twice the pay of English sailors and demand a better maintenance. How that will affect the situation remains to be seen.

FINANCIAL ASPECTS OF THE WAR

BY

ALEXANDER DANA NOYES

TO EXPLAIN the extraordinary financial phenomena which have accompanied the outbreak of European war in the closing week of July — phenomena which, in their character and scope, have never been paralleled in the history of international finance — something of retrospect is necessary. As every one knows, predictions and apprehensions over a possible general European war have been recurrent on Europe's financial markets ever since the Franco-Prussian conflict of 1870. Sometimes, as in the case of the Balkan War, they have reached proportions which caused grave disturbance on Europe's markets. If they have never been received with entire credulity, the reason undoubtedly was that the consequences, which experienced financiers could foretell from such a conflict, were, in their own words, so unthinkable that the war itself seemed inconceivable. European bankers, when asked, during these many past years, what would be those financial consequences, have usually replied that the sequel simply baffled financial imagination. All that they could say was that a general European war would necessarily bring to a halt the ordinary operation of civilized finance and trade, with what actual outcome on the markets no one cared to predict.

It cannot be said that this conflict of all the great European nations was expected, even by the states which have been involved, until a very few days before the war broke out. Nevertheless, there were many evidences in the markets of a peculiar character, which indicated at least, the strongest kind of uneasiness in that direction. In one sense, it may be said that financial preparation for this very war has been in progress ever since the Balkan conflict came to its end, early in 1913. The situation in which that peace agreement left the great European powers was by no means reassuring, and the first visible reflection of that uneasiness was that the Imperial Bank of Germany began the most urgent efforts to build up its gold reserve.

Tradition on the markets has it that when war between France and Germany threatened, in the Morocco conference in 1911, the Kaiser asked the German bankers whether the financial situation was in shape to confront a war and that they answered, "It is not." He then, according to the story, warned them to lose no time in getting themselves into proper shape. Whether this anecdote be authentic or not, the fact is that through employment of most unusual expedients, the Bank of Germany has added more than $100,000,000 to its gold reserve since that Morocco episode. A very substantial part of this addition has been locked by the Government itself in the Castle of Spandau, along with $30,000,000 gold placed there out of the Franco-Prussian war indemnity. But other European banks have not been idle; in the year since the Balkan War, the Bank of France has added $170,000,000 to its gold reserve, mostly obtained through import from the United States, and the Imperial Bank of Russia has increased its own gold holdings by $150,000,000.

Now it is perfectly true that, unless perhaps in Germany, this heaping-up of gold by the great state institutions was declared not to have been inspired by apprehension of war. In France particularly, Governmental and financial authorities were careful to explain that the Bank was strengthening its reserve because of the difficult financial position at Paris, and because of the very general hoarding of cash by the French people, which began with the outbreak of the Balkan War, but which did not stop when that war was over. The explanation was no doubt correct; yet, in the light of what has happened since, it is not unfair to say that both the hoarding by the people and the subsequent accumulation of gold by the Bank of France must have been largely due to growth of the instinctive belief that war was imminent at any time.

So much for the longer period of preparation. Except for the inconvenience caused by these gold accumulations in a few great cities, the international market was not greatly disturbed. When, however, Austria declared war on Servia on July 28, the markets of Europe at once became greatly excited. At Vienna, panic of the most formidable sort broke out immediately; at Berlin, the crash on the Stock Exchange was emphasized by the actual public recommendation by some large financial institutions to their clients that it was best to sell their investment securities. Here, in the United States, we saw the reflection of this European apprehension in the engagement at New York, for European markets, of no less than $45,000,000 of our gold during the ten days following Austria's war declaration. It was in this period that the *Kronprinzessin Cecilie* sailed with her $10,000,000 in gold for London and Paris — an extraordinary incident when one considers that the vessel, belonging itself to Germany, was carrying the treasure for the two nations which were destined to be at war with Germany by the time the cargo could have been delivered. It was

not strange that the ship should have been ordered back to America from mid-ocean, and that the gold should never have reached its destination.

But meantime, and in advance of declaration of war between Germany and France and England and Germany, the demand for American gold by Europe grew to a climax. While the enormous shipments of the closing week of July were being made, the foreign exchange market facilities for the resultant operations of finance suddenly broke down. In addition to actual gold engagements, it was apparent that all Europe was calling back, through instant transfer, its American credit balances. This made necessary the bidding for drafts on Europe, in such quantity that the New York exchange market simply could not provide them. It had not sufficient foreign banking credits. As a rule, the highest rate to which exchange on London can go is around 4.89 to the pound sterling; for at any higher figure there is a handsome profit in remitting with gold instead of drafts. But in the last week of July the rate of sight exchange on London rose, first to $5 in the pound, then to $6, and at length to $7 — something never previously witnessed in the New York market. It meant that the drawing of exchange on London had become virtually impossible, and that situation in a day or two avowedly existed. It can best be described as a panic in foreign exchange — which, as the measure of international finance, was appropriately the field where all that was to follow should have been first foreshadowed.

It was in this same concluding week of July that the other foreign financial markets began their reflection of the expected war. Although England did not declare war on Germany until the evening of August 4, the London markets were undoubtedly anticipating such declaration during the five or six preceding days. From a rate of 3 per cent. in the middle of the preceding week, the Bank of England's official discount rate advanced on Saturday, August 1, to 10 per cent., a rate only three times matched in the history of the institution, never exceeded, and never reached at any time since 1866.

This remarkable action in reality reflected a run on the Bank of England through which, between July 30 and August 6, that institution lost no less than $52,500,000 gold; its banking reserve against its deposits being meantime so far drawn down that the ratio of reserve to liabilities fell from the 40 per cent. of the preceding week — a low rate for the bank — to 14⅝. Meantime throughout the week, sales of securities by Continental bankers and investors, on markets from which they were soon to be cut off by war, became so prodigious that the Paris Government closed the outside stock market and prohibited all but cash sales on the official Bourse. But this converged the full force of Continental security liquidation on London; where, on July 31, the Stock Exchange closed its doors for the first time in a century. The Stock Exchanges at New York and elsewhere in the world immediately followed suit.

To trace the further progress of financial demoralization — which began, as we have seen, even before the declaration of war by England — it must first be kept in mind that in the present day all the great markets of the world are bound together as never before in a network of interlacing credit. Berlin bankers carry deposit balances in London to the extent of hundreds of millions sterling; so does Paris, and so also does New York. This indebtedness is not all one-sided; an enormous mutual indebtedness exists on all these markets, constantly maturing, constantly being paid off in the ordinary processes of exchange, and constantly subject to renewal. When England actually went to war the great Lombard Street banking institutions had their names affixed to bills of exchange, payment on which was due day after day but payment for which depended on the arrival of cash remittances or merchandise from the Continental markets. Both were cut off by the war, the seizure of railway facilities on the Continent, and the temporary embargo on ocean traffic. Technically, therefore, numerous London houses of the first importance were confronted with bankruptcy and in view of the whole abnormal character of the situation it was quite evident that the Government would have to intervene in their behalf. During the first week of August, in which war was declared by England, Monday was a regular bank holiday and therefore no business was done in financial London. The British Government first extended this holiday by decree until the following Friday; but the situation then being still impossible, the Government declared a general moratorium of one month — an expedient which meant that all financial and commercial liabilities maturing within that time should automatically be extended; but that the same postponement should not apply to salaries, rent or taxes.

The decreeing of a moratorium was in itself sensational enough. England had never before since the modern credit system was created resorted to that expedient; the very same action excited surprise and comment when adopted by the Balkan states at the outbreak of their war in 1912. But the moratorium did not show all of financial London's particular predicament. The run on the Bank of England so weakened the position of that institution as to threaten inability to maintain any reserve at all against its deposit liabilities in case the requirements of the Bank Act of 1844 were continued, whereby all notes issued must be fully covered by gold held in the institution's vaults. Therefore, on August 8, the Bank Act was suspended; a policy adopted only on three occasions since the passage of the law in 1844, all of them London panics, occurring in 1847, 1857, and in 1866. Although historically an event of such unusual importance, the suspension of the Bank Act created no very anomalous situ-

ation, since it simply means that the bank is authorized to issue additional notes without full gold "cover" in its vaults. It does not mean that the bank will have suspended specie payment on its notes, or that inflation of the British currency is at hand. On the contrary, even with the large additions made to its circulation in the shape of notes not directly secured in gold, the Bank of England still held a larger proportion of gold as security for its outstanding circulation than is held habitually by the Imperial Bank of Germany, by the Bank of France, or by the United States Treasury. All of this, like every important movement on the world's financial markets, must be judged partly as reflecting the actual political and commercial conditions of the moment, but largely also as foreshadowing the longer results. Precisely as the London stock and money markets fell into panic four days before Great Britain declared war on Germany, and thereby filled the prophetic rôle for which stock markets are always watched by the community at large, so the initial movements of the markets around the outbreak of any great war are a forecast of much that may be expected to happen afterward, quite outside the banks and the Stock Exchange and in the domain of general prosperity and industry. It is not too early to ask what the character of these later results may be expected to be on this occasion.

From the broadest view the economic effect of such a war as this can hardly fail to be unfortunate. Wholly apart from the suspension of peaceful commerce, finance, and industry, the waste of capital involved in such a contest is bound to be enormous. Five or ten millions of men, withdrawn from peaceful production and supported, while they engage in wholesale destruction, by money drawn by Governments from the private stock of capital, must necessarily arrest in some degree the development of the civilized world. The Franco-Prussian War certainly had this result on the states engaged in it, and, in a measure, on the rest of the world; so did the Boer War, and so the Russian-Japanese conflict. All were followed, especially in the belligerent states, by a period of financial lassitude and reaction which more or less faintly reproduced the prolonged and paralyzing effects following the 12-year Napoleonic conflict in which all Europe was engaged between 1803 and 1815.

Even Prussia, emerging victorious as the head of the German Empire in 1870, was hit with the full force of the panic of 1873. The noteworthy exceptions to this rule, in modern history, were the respective sequels to our own Civil War and to our Spanish-American conflict of 1898. In both cases — though the later after-effects of the Civil War were unquestionably serious to this country — it was the enormous expansion of natural resources not yet developed, and a combination of economic and industrial conditions highly favorable to the United States, which averted what might otherwise have been expected. This should be kept in mind on this occasion; for although not a participant in this conflict, we still have to measure what our probable share will be in the resultant economic losses, just as our financial markets are suffering now from the outbreak of the war in common with those of Europe.

But at this very point there are some exceedingly interesting distinctions to draw. Severe as the shock of the sudden European convulsion has been on the markets of the United States, the resultant demoralization of trade and industry was nothing whatever akin to that which prevailed in the neutral states of Europe. Not only so, but there was evident from the start an undertone of hope and confidence as to the eventual bearing of this foreign war on our own trade situation. I shall presently endeavor to show how far this initial feeling was justified by the circumstances. But as to the economic effects of this war on Europe itself, there can be no doubt whatever. Campaigns such as are now in progress are bound to cost every great belligerent state, according to the estimates of European experts, two to five million dollars per day, and seven powers are now engaged. As far back as 1896, a much discussed Austrian estimate figured out at least $5,000,000 a day as the necessary expenditure for France, or Germany, or Russia. The estimate of Dr. Charles Richet, a statistician of the University of Paris, made the extraordinary calculation that if Germany, England, France, Russia, Italy, Austria, and Roumania were all engaged in a first-class war, the aggregate daily expenditure would run to upward of $50,000,000. On such a calculation, it would follow that, if the war lasted only as long as the short Franco-Prussian War of 1870, the total outlay, exclusive of war indemnities, would exceed five thousand million dollars.

The effect of all this on the financial and industrial prosperity of Europe itself for a very considerable time to come is bound to be far reaching. Indeed, not only is the private capital of Europe now being diverted from peaceful pursuits into the prosecution of war, but the repairing of destruction to property under the activities of the rival armies will necessitate a continuance of that drain even when the war is over. Already the German Reichstag has granted a war credit of $1,250,000,000 to that Government, while the British war credit has now reached the figure of $1,025,000,000. This leaves the other belligerent states, such as France, Austria and Belguim, still to be reckoned on. The longer effects of such prodigious waste of capital are difficult to trace out with any accuracy.

The break-down of our market for foreign exchange, the closing of our Stock Exchange, the temporary embargo on export trade, have all sufficiently indicated that even a neutral state like ourselves cannot escape the indirect consequences of such a conflict as this. For one thing it will not do for our finance and indus-

tries to rely on European capital for a considerable time to come. A very large and lucrative import trade from Continental Europe has been cut off, and a good part of it will not be resumed during the progress of the war. At the start, indeed, even our export trade, as we have seen, stopped short because of the risk of capture, the enormous cost of war insurance, and the impossibility of negotiating foreign payment for consignments of merchandise while the free operation of foreign exchange was blockaded.

The first clear evidence that our situation had in it certain peculiar and unusual elements of strength appeared in the wheat market. Our enormous winter wheat crop had already been harvested when the war broke out; with the expected yield of spring wheat, it should give by far the largest harvest in our history, exceeding the next largest actual yield, according to the Government figures, by 150,000,000 bushels, or 20 per cent. This would leave by far the largest available export surplus of wheat on record, and at the very moment when Europe's need of it, with her own early wheat crop having already run short and her harvesters for the autumn crops ordered to the army, is urgent and paramount.

The obvious difficulty at the start to arrange for shipment of this wheat brought at first great diversity of opinion as to values in the grain trade. But Europe, recognizing her own need, proceeded at once to guarantee the war risks, to make sure of the ocean highway and indirectly to facilitate exchange. The response of the wheat market was a rapid and continuous rise in price, despite the enormous congestion of supplies at our storage markets of wheat which was temporarily shut out from the export trade — a condition which ordinarily would mean a fall in prices. This action of a highly speculative market was as significant an index to the general nature of the situation as an advance in stocks would have been had the Stock Exchange been open. It meant, indeed, more than merely breaking the blockade of wheat, and more than the mere possibility of creating for us in Europe a credit balance of from $150,000,000 to $300,000,000. Its real significance was that means exist and can be found for prompt restoration of a neutral market's trade.

The larger significance of this must be judged in the light of the success with which European manufacturers in general, and German manufacturers in particular, have captured of recent years the neutral export markets. This has been especially true of China and South America, and has been very marked in products like steel and textiles, in which trades we are a close competitor of Germany. The United States is bound to supply a great part of the shortage thus created in the neutral export markets. Perhaps the most serious problem in the matter has to do with the actual available supply of ships, when Germany, whose vessels usually carry something like 4,500,000 tons out of the 37,500,000 total tonnage cleared from our ports each year for foreign markets, is shut off from the ocean highway. The process of obtaining transportation facilities to offset the idleness of the German merchant fleet will probably be slow. It should be effective in the end.

But in the meantime there is also the home consumer, who is now cut off from nearly $200,000,000 annual imports of merchandise from Germany — not to mention the effect of war on the total of something like $900,000,000 in merchandise sent to us annually from the whole of Europe. These home needs must be provided, and, in the main, our domestic manufacturers must undertake the task.

There is, however, another side. Even granting the necessary supply of ships for an increased ocean trade to be obtained, our finance and industry must largely do without European capital. Even if we gain ground rapidly in the neutral export markets, we have lost for the time certain European export markets — Germany, for instance, to which in the fiscal year 1913 our merchandise exports were $142,000,000 greater than our imports. No doubt this loss during war time will be largely compensated for by greatly increased exports, even to Europe when the war is over; for a great waste will have to be made good quickly; but, meantime, the problem of certain raw materials essential to some of our manufacturers, and obtainable largely or wholly in Europe, is extremely difficult. Chemicals especially, in many industries, and dyes in textiles will not be easy to replace during the trade embargo on central Europe. Such circumstances will probably alter the character and scope of many of our productive industries, and no doubt will seriously impair the activities of others. Back of all this stands also the awkward problem of the undoubted failure of our customs revenue under existing circumstances to meet the requirements of our own governmental expenditure. This may bring about the singular result of a Government loan or an increase in taxes, placed on a neutral community because foreign nations are at war.

There are few American business men who do not recognize the possibility that this country may be left at the end of the present conflict with vastly heightened industrial and commercial prestige. The result may even be restoration of the American merchant marine, which held its place among the great merchant fleets of the world between 1812 and 1862, but which now carries barely 14 per cent. of the tonnage cleared from our ports for outside nations, and which transports scarcely one fourth as much of our own exported commodities as do vessels under the British flag. All this may, and, to a great extent, certainly will happen. But the intervening process will be trying both to producer and consumer, even in the neutral United States.

RIGHTS AND DUTIES OF THE UNITED STATES AS A NEUTRAL

THE APPLICATION OF THE HAGUE CONVENTIONS OF 1907, AND THE DECLARATION OF LONDON OF 1909 — RULES GOVERNING FOREIGN SHIPS IN AMERICAN WATERS — AMERICAN EXPORTS AND THE LAW OF CONTRABAND

BY

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UPON the outbreak of the European war the United States finds itself placed in a new relation to each belligerent Power, and suddenly subjected to a variety of duties, and possessed of certain rights that accrue only in such abnormal times. With a merchant marine shrunken to insignificance, with a vast export trade threatened with paralysis by the lack of neutral bottoms, and with American citizens stranded by tens of thousands on European soil, we nevertheless face a situation that Washington would have rejoiced to substitute for that which confronted him in 1793, for to-day the United States as a neutral enjoys rights that were not dreamed of at the close of the eighteenth century; and those rights are in large degree codified.

To The Hague Conventions of 1907, concerning the rights and duties of neutral powers in naval war, and the rights and duties of neutral powers and persons in case of war on land, the United States is, happily, a party. It has also accepted the Declaration of London of 1909, concerning the laws of naval war. The purpose of that agreement was to make clear the law to be applied by the proposed International Prize Court, the arrangement for the establishment of which was formulated at The Hague in 1907. Though the powers have not established the Prize Court or accepted generally the Declaration of London, the United States has formally ratified both agreements. By so doing it has recorded its approval of the rules enunciated in the latter document. It cannot, therefore, complain of the conduct of any belligerent which may seek to conform to or rely upon them. Although the Parliament of Great Britain has acted adversely upon the Declaration of London, that country is, nevertheless, free to change its position and to make that arrangement the guide of its own prize courts. Deriving their law from that source, their decisions cannot be denounced by us as unjust. For these several codifications the United States has had to pay a price the extent of which is hardly yet appreciated. However useful may be the knowledge at the very commencement of hostilities of what a neutral may reasonably expect, the rules themselves are in certain respects so adverse to interests of such a state that it is only through the grim experience of a general European war that the United States can fairly estimate how well it has conserved its vital interests in accepting as law principles that may now be relentlessly applied.

According to The Hague Conventions, the United States as a government is obliged to refrain from taking any part in the war. Impartial participation does not suffice. We could not excuse the sale of arms to Germany by pleading readiness to suppy likewise France or Russia. The scope of the duty of abstention is broad. The government must not furnish a belligerent with anything that will serve to increase its fighting power, such as ammunition or other war material, or warships. Incidental to this general duty to abstain from participation, the neutral finds itself burdened with a still more onerous duty to prevent its territory and resources from being employed to strengthen the military or naval power of a belligerent. The diligence required of a neutral is measured by the "means at its disposal." Those means must be used to prevent the commission of warlike acts within its waters, or the passage of belligerent troops over its territory. The neutral is obviously not responsible for what it is powerless to prevent.

From the rules of the Treaty of Washington of 1871, which made possible the Geneva Arbitration of the so-called Alabama Claims, has been derived the well-known principle expressed in happier terms in 1907, that "a neutral Government is bound to employ the means at its disposal to prevent the fitting out or arming of any vessel within its jurisdiction which it has reason to believe is intended to cruise, or engage in hostile operations, against a Power with which that Government is at peace." The same vigilance is required of a neutral to prevent the departure from its territory of a vessel there adapted entirely or partly for warlike

use, and intended to cruise or engage in hostile operations. Pursuant to this obligation the United States has already taken extraordinary precautions to prevent the departure from Atlantic ports of merchant vessels sailing under belligerent flags if equipped in such a way as to fight for their own countries, and under contract for public service in case of war.

In sharp contrast to these obligations is the express understanding that a neutral is not bound to prevent the export or transit for the use of a belligerent of anything which can be of use to an army or a fleet. Thus the United States is not required to prevent its citizens from selling or exporting arms or war material of any kind. Such transactions would, nevertheless, constitute direct participation in the war, and hence be regarded as internationally wrongful, so as to subject the participant to serious penalties in case of the capture of his property. Such conduct would also, moreover, disregard the spirit if not the letter of President Wilson's Proclamation of Neutrality of August 4th, in which it is declared that "the statutes and the treaties of the United States alike require that no person within the territory and jurisdiction of the United States shall take part, directly or indirectly, in said wars."

Whether war is waged on land or sea, neutral territory is deemed inviolable. As to this requirement The Hague Conventions are explicit. Acts of war in neutral waters are forbidden. Thus if the *Kronprinzessin Cecilie* had been captured by any enemy cruiser just as she entered Frenchman's Bay on August 4th, the United States would have had good cause to demand reparation from the government of the captor, and would also have found itself compelled to demand the release of the vessel. A prize court can not be set up on neutral territory or in neutral waters. Nor can belligerent warships make use of such waters for the purpose of increasing supplies of war material or of completing their crews, or as a base of operations against the enemy.

For numerous purposes a belligerent warship may endeavor to make use of neutral waters. The Hague Convention of 1907 indicates the scope of the privileges that such a vessel may be permitted to enjoy, and thereby enables the neutral to follow with certainty a course that shall not expose it to the charge of unneutral conduct. Let us consider a situation that might arise. A French cruiser, short of coal and provisions, and in an unseaworthy condition, is pursued by the enemy, and puts into Portland harbor to escape capture and to rehabilitate herself generally. Just inside of Cushing's Island she finds herself in the unwelcome company of a German warship that made the same port a few hours earlier. The Hague Convention has marked out the general course which the United States should follow; and by his Proclamation of Neutrality, President Wilson has indicated with precision what we would permit. Accordingly, the French ship would be allowed fuel sufficient to enable her to reach her nearest home port, or half of that amount if she were rigged to go under sail and also be propelled by steam. Although the United States could, without impropriety, if it had adopted that method of determining the amount of fuel to be supplied, allow the vessel to fill its bunkers built to carry fuel, and thereby greatly increase her efficiency, the President has announced a rule that is consistent with our previous policy and in harmony with what was, prior to 1907, generally regarded as sound practice. The latitude accorded the neutral in 1907 was not sought by the United States, was vigorously opposed by Great Britain, and was the result of a compromise to satisfy the far-reaching demands of Germany. With respect to provisions, the French ship could supply herself with garlic and Aroostook County potatoes *ad libitum*, so long as the revictualing did not exceed the so-called "peace standard."

If it were in a seaworthy condition the German cruiser would be obliged to depart within twenty-four hours after its arrival. The French vessel might, however, be allowed additional time if needed for recoaling or repairs. The latter might necessarily consume a few days. Repairs would not be permitted that would serve to do more than place the ship in a seaworthy condition, and even such repairs would not be allowed if they necessitated a long sojourn. If, as in the case of the Russian ship *Lena*, that entered San Francisco harbor in September, 1904, during the Russian-Japanese war, necessary repairs would require a stay of several weeks or months, the vessel would be promptly interned by the United States. By interning the ship the United States would be taking measures to render her incapable of putting to sea during the war.

It was declared in 1907 that the citizens of a state which is not taking part in the war are considered as neutrals. To the Americans that are now in belligerent European countries that status is precious. It enables the possessor to escape numerous burdens which the state that is engaged in war justly and of necessity imposes upon its own citizens. One cannot, however, avail himself of his neutrality if he commits acts against a belligerent, or if he voluntarily enlists in the ranks of a party to the conflict. There are, nevertheless, services which the neutral citizen on belligerent soil may render without losing his distinctive character. Americans in Paris or Berlin might, for example, organize for the purpose of assisting in matters of police or civil administration. They might also furnish loans (if their means permitted) to one of the belligerents in whose territory they did not reside.

Neutrals on belligerent territory where martial law has been declared necessarily feel the rigor with which the government asserts its authority. It must be obvious that measures which, in seasons of peace, indicate abuse of power, in times of war lose their arbitrary aspect

and, despite harsh aspects, cease to be regarded as wrongful. Thus the movement of neutrals on belligerent soil may be restrained, and they may be even temporarily prevented from leaving the country. Slight ground for suspicion that they are acting as spies justifies arrest and ample inquiry to determine the grounds for such a charge.

To the people of the United States as a whole the war presents no graver aspect than in its bearing upon our right to export and transport to the belligerent countries food, clothing, fuel, and other things known as conditional contraband. To make clear the problem now confronting us a brief explanation of the law is necessary. "Contraband" is the term employed to describe an article which is liable to capture because of its use in the prosecution of the war, and because of its hostile destination. Contraband is subject to capture on a neutral vessel and is liable to condemnation. Goods which belong to the owner of the contraband and which are on board the same vessel are also liable to condemnation. Moreover, according to the Declaration of London, the vessel carrying such articles may be confiscated if the contraband forms "by value, by weight, by volume, or by freight, more than half the cargo." Maritime states have long been aware of the importance of the distinction between articles adapted solely for use in war, such as guns and projectiles, and those susceptible of use in the pursuit of peace as well as in that of war, such as food and coal. Articles of the former class have come to be known as absolute contraband, those of the latter as conditional contraband. The purpose of the distinction is to limit the right to capture articles of the latter kind to occasions when they are destined for an essentially hostile end, and to permit the capture of those of the former kind whenever they are bound for the territory of a state engaged in war. In order to protect neutral commerce from interference, the United States has struggled hard for recognition of the principle that what is capable of feeding and clothing, and otherwise ministering to the sustenance of the people of a belligerent state, should not be subject to capture and condemnation, unless shown to be not only capable of use in war, but also destined for that use. Though maritime states are not indisposed to accept this principle, there has been diversity of opinion respecting, first, what articles should be treated as conditional contraband, and secondly, under what circumstances articles recognized as such should be subject to capture. The Declaration of London appears to have solved the first difficulty by specifying in appropriate and careful lists certain articles as absolute, and others as conditional, contraband (and still others as not contraband at all). Thus arms of all kinds, gun-mountings, clothing and harness of a distinctively military character, animals suitable for use in war, and armor-plate are among the articles placed in the first category. They are subject to capture if destined to territory belonging to or occupied by the enemy. This is true whether the carriage of the goods is direct, or entails transhipment or subsequent transport by land. What is decisive is the destination, not of the vessel but of the goods. Thus a consignment of uniforms, shipped from New York on an American vessel bound for Naples or any other neutral European port, would be subject to capture, even within sight of Nantucket, if it were shown that the ultimate destination of the goods was Trieste.

Articles in the second category, and described by the Declaration of London as conditional contraband, include foodstuffs, gold and silver, paper money, boots and shoes, vehicles, material for telephones and telegraph, fuel, lubricants, and harness. These articles furnish a substantial portion of the export trade of the United States.

The second difficulty already noted — concerning when conditional contraband is subject to capture — is the all-important question before the United States to-day. In more concrete and simpler form the question is: When is such contraband to be deemed to be intended for a hostile use so as to justify its capture? The vital significance of the answer that the belligerents may give is hardly yet appreciated. Thus far popular attention in this country has been focussed on the lack of American and other neutral ships available for our foreign trade. Relying upon the assurance that "free ships make free goods," we have concerned ourselves about vehicles of transportation rather than with the safety of our produce. It is important to note what assurance the Declaration of London affords. It is there provided that conditional contraband is liable to capture if shown to be destined for the use of the armed forces of a belligerent, or for a department of its Government unless, in the latter case, circumstances show that the goods cannot in fact be used for the purposes of the war. (This exception is not, however, applicable to a consignment of gold or silver, or paper money.) It is further provided that a hostile destination is presumed to exist in case the goods are consigned, not only to enemy authorities, but also to a contractor in the enemy country who as a matter of common knowledge supplies articles of the same kind to the enemy. Again, a similar presumption arises if the goods are consigned to a fortified place belonging to the enemy or to another place serving as base for its forces.

In the meantime American exporters must face the fact that, if propriety of conduct is to be tested by the Declaration of London, the belligerent Powers are in a position to capture and condemn foodstuffs, coal, and other articles within the same category, with an ease that renders shadowy and dangerously vague the distinction between what is conditional and what is absolute contraband.

THE BALKANS

THE GREATER SERVIA IDEA WHICH BROUGHT ON THE IRREPRESSIBLE CONFLICT — THE SANJAK OF NOVIBAZAR, AN UNHEARD OF WASTE THAT WAS ONE OF THE PRIME CAUSES OF WAR

AT THE present time the most interesting thing about the Balkans is the idea of a greater Servia.

In Servia itself including territory recently acquired, there are about 4,500,000 Serbs. In Montenegro there are perhaps 500,000. In Austria there are nearly 3,500,000 Serbs and Croats who belong to the Servian Race.

The Servians dream and talk and write of a greater Servian kingdom that shall take in all the Servian race. They want it to take in more than that. They want it to take in Bulgaria, also. They look back to the time of King Stephen Dushan (fourteenth century) and his French wife, when Servia was supreme in the Balkans and was nearly as advanced in civilization as the most advanced nations of Europe. They feel that the recent battle of Kumanova against the Bulgarians, atones for the battle on the plains of Kossovo in 1389, which put Servia under Turkish rule — a battle about which the Servian peasants still sing folk-lore ballads. The reëstablishment of this ancient kingdom has become a passion with the Serbs, not only those in Servia, but many of those in Hungary as well. These Serbs might have become satisfied with Hungarian rule if it had been more enlightened, but the Magyars have followed a repressive policy in trying to Magyarize the races under their domination. No matter whose fault it is, the fact is that the Serbs of Hungary have watched with eagerness and delight the recent successes of Servia.

As explained by Mr. Morton Fullerton, in his "Problems of Power": "Up to 1905 this little nation of farmers and stock-breeders (in 1912, Servian exports amounted to about one hundred million francs, out of which 62 per cent. was represented by the products of the soil, and 20 per cent. by cattle and pork), remained in economic subjection to Austria. Austria's dream was to annex Servia to her great composite Empire. Whenever Servia displayed signs of political independence, Austria, who all but monopolized Servian exports, began the economic blackmailing of her emprisoned neighbor by closing her markets to Servian pork and beef. A Servian statesman, M. Pashitch, resolved to put an end to these humiliations. In 1906 he proposed a customs union between the three Slav states of the Balkans; he thus took the first step for the formation of that Balkan Confederation which six years later was to astonish the world. Servian live-stock was partially diverted from the old Austrian routes and transported by the Danube, the Ludwigs-Canal, and the Main to German markets. A second outlet for Servian products was procured at Varna by means of concessions accorded on the Bulgarian railways. A favorable treaty of commerce was arranged with France. Little by little the old trade-current through Bosnia and to the Dalmatian coast was diminished and Servia was now selling her pork and cereals, without the Austrian middleman, through the channel of the Black Sea ports and Salonika, in all the Mediterranean ports, from Syria by way of Egypt to Italy. The need of direct communication between the Danube and the Adriatic became steadily more obvious, and Servian claims to economic autonomy, the only form of independence which in the modern world is the sign of political autonomy, became more and more legitimate. Austrian imports fell from 60 per cent. to 35 per cent. Then came the war of 1912. Within only a few days after the opening of hostilities, Austria beheld the Servian troops in possession of Uskub, of old Servia, of a large portion of the sanjak of Novibazar, and rapidly making for the Adriatic coast-line. A national policy of more than thirty years was thereby suddenly stultified. Servia had burst her bounds, and was no longer the ward of the Dual Monarchy. In an adroit appeal addressed to English sympathy, through the *Times* (November 24, 1912), the Servian Prime Minister, M. Pashitch, explained that independence of trade and economic liberty were not only necessary for Servia's development, and even for her existence, but also advantageous to the world; an Adriatic outlet, he argued, would give Servia new neighbors, "since every maritime nation would then be Servia's neighbor as much as Austria is to-day." Servia was particularly happy at the thought that she was thus to secure direct contact with England, and to live henceforth in close relations with the nations of the West."

In 1908, when Austria-Hungary annexed Bosnia and Herzegovina, Servia felt that at any time it might be the next victim. The army which was launched first against the Turks and then against the Bulgars was originally prepared to meet an Austrian-Hungarian advance. It is now fulfilling that mission. Austria-Hungary has naturally chafed at the growth of a greater Servian kingdom which would mean not only the loss of her Serb provinces but also the end of her ambition for further outlets on the Adriatic and the Ægean.

The dual monarchy has felt that not only Servians individually but the Servian Government itself was preaching this hostile doctrine. A former prime minister, Count Aehrenthal, tried to shown the complicity of the Servian Government in the famous Agram trials, but it was shown that his evidence was forged. Nevertheless, the fundamental situation remained. Servia's success in the Balkan War was propaganda enough. Sooner or later, without the Servian Government's moving a finger, the Serbs of Hungary were likely to revolt. A successful Servia was therefore a perpetual menace to Austrian peace and integrity. When a Serb killed the Archduke Francis Ferdinand, Austria saw its opportunity to remove the constant menace from its frontier. It took his death as the excuse, and declared war.

If this were all the story the war would have been localized to these two countries. But Russia's policy has been to encourage the Slav kingdom of Servia in territory where the powers will not let her go herself. On the other hand, Germany has always hoped to reach the east through its ally, Austria. Before the last Balkan War there was a strip of territory, the Sanjak of Novibazar, belonging to Turkey, which ran up between Servia and Montenegro and touched Austria. Through this route Austria, and through Austria, Germany, hoped to reach the Ægean and the East. After the Balkan War Servia and Montenegro took this territory and put a solid line of Slav domination across the path of German-Austrian ambitions.

Unless the policy of years — the *Drang nach Osten* — was to be given up, here was another fundamental reason why Austria and the greater Servia idea could not live peaceably together.

In no country in the world has the question of population caused so much bitter dispute as in the Balkans. Because of racial and national animosities and jealousies, census figures have been deliberately padded and falsified, especially in that territory which was, until recently, European Turkey. Only in Bulgaria, Servia, and Greece proper have genuine census enumerations been made.

Bulgaria claims to have had a population, in 1910, before the war, of about 4,337,000, this being increased since the war, through new territory, by about half a million. Servia reported 2,900,000 in 1910, the new territory increasing this by a little more than 1,500,000. In Greece the population was 2,730,000 before the war and now is almost 4,400,000. Little Montenegro, one hundred miles in length by a bare eighty in width, adds a trifle more than 500,000 to the total. The estimate for Albania, on a conservative basis, is about 800,000.

It is in the proportionate numbers of the various races and nationalities, however, that the greatest confusion exists. Nowhere in the world is there such a variety of different peoples intermingling with each other.

Broadly classified, the Slavs, Turks, and the Greeks are the chief elements. Of these three, the Slavs predominate by a vast majority, but they again are sharply sub-divided into two branches; the Bulgars and the Servians.

The consensus of opinion would indicate that the Greeks predominate in the large cities and towns and along the sea coasts. In the interior they are not found much north of Salonika. Greeks in the cities are found as far north as Varna and Bourgas, and even on the other side of the Danube, in Roumania, most of them being engaged in commercial vocations.

In the interior the Bulgarians claim that they constitute the main bulk of the population down almost to the foot of Mt. Olympus and as far west as Albania, up to Old Servia although the Servians claim that many of these people are really Servians Bulgarized. Thence, up to the old frontiers and over into Montenegro the Servians preponderate.

The Turks are nowhere found in a solid mass, but they are scattered over almost the entire Balkans, even up in the Austrian provinces of Bosnia and Herzegovina. Nowhere are they more numerous than in northern Bulgaria, along the banks of the Danube, and in the northern cities of Varna and Bourgas they still form a considerable portion of the population. The Bulgarian census figures give their number at almost 500,000, about a seventh of the total population. Servia only admits having 14,000 Turks within her territory, but this is undoubtedly an underestimate. There is no doubt that the Servians have been energetic in driving the Turks out of Servia during their longer period of independence.

Of the minor race divisions the Albanians deserve first mention. They are supposed to be the direct descendants of the ancient Illyrians, who have remained racially pure on account of the mountainous character of their country. While the majority are Mohammedans by faith, they differ markedly from the Turks, being rough in their manners, less fanatical in matters of religion, and not at all inclined toward steady pursuits. They are still in the patriarchial stage of social development, living in clans as did the Scottish highlanders two centuries ago.

Next to the Albanians in numbers come the Jews. These are the direct descendants of the Jews who were driven out of Spain during the period of the Inquisition by Torquemada and were so hospitably received by the Sultan of Turkey. To this day their speech does not differ very much from modern Spanish. Up in Bulgaria they number nearly 40,000, and farther south they become more numerous. In Salonika, now a Greek city, the Jews form a big majority of the population, numbering about 100,000 out of a mixed total of 174,000. Almost to a unit they are engaged in trade. They have always had friendly relations with the Turks and have enjoyed many special favors under the Turkish Government.

The Wallachs are another considerable portion of the population throughout the Balkans, especially in the mountainous regions. They have usually been classified as Roumanians, but they differ somewhat from the Roumanians in Roumania proper.

Another scattered element is the Gipsy, especially in Bulgaria and Servia. These people are the lowest in standards of living and culture of all the Balkan races. While all of them speak Turkish, their natural tongue differs from any other Balkan dialect. They call themselves "Copts," which alone would indicate their Egyptian origin.

Although the Servians and the Bulgarians, forming the biggest element in the Balkans, are classified as Slavs, there is still a striking difference in racial characteristics between them. The Bulgar, slow, heavy, inclined to be morose and tongue-tied, suspicious of strangers, uncouth, is not really a pure Slav. Originally the country which he now occupies was populated by an Asiatic race, called Volgars, because of their having come from the River Volga. It is supposed that they and the Hungarians and the Finns are of the same origin.

Later the Slavic hordes overran the country, sweeping down to the borders of Greece. The Bulgars were completely overcome and assimilated with the Slavs. To-day not a trace of their original tongue remains, the language of the Bulgarians being the purest of all the Slavic dialects, not excepting even the Russian. But they still retain certain physical and temperamental characteristics that are distinctly not Slavic, such as their rather dark features and stolidity.

The Servians are everything that the Bulgarians are not. Physically they are fairer and more refined in appearance. By temperament they are light hearted, joyous, frivolous, and charming to deal with. Their country being more suited for defence, they were never completely overrun by the Turks, and as a consequence they still retain, like the Greeks, a native aristocracy of culture.

The Turks, too, present some wide differences of race. In the North of Bulgaria, along the banks of the Danube, there is a strong Tartar strain among them, whereas farther south many of them are simply converted Bulgars, called Pomaks, speaking the same tongue as their Christian neighbors, but hating them cordially.

Nor is there to be found a permanent friendship between any of these elements. That they could unite, even temporarily, during the attack upon Turkey was the wonder of wonders to all who have an acquaintance with the peoples of the Balkans. This mutual animosity has its foundation in history as well as in difference of race. In recent times Servia and Bulgaria have fought each other twice. The Greeks have a universal prejudice against all Slavs, wherever they live.

In 1884, when Bulgaria took over the rebelling province of Eastern Rumelia from Turkey, Russia, fearing the menace of a territorially aggrandized Bulgaria, yet not daring to interfere openly on account of the attitude of Great Britain, persuaded the Servians to attack Bulgaria. The Servians were completely routed in one three-day battle, for which defeat Russia was never able to forgive Bulgaria. On their side the Bulgarians, though feeling a warm affinity for the Russian people, have always violently hated the Russian autocracy. Nowhere in Europe have the Russian political exiles found a surer refuge than in Bulgaria. Of all countries this is the only one which has steadily refused to molest these refugees at the behest of the Russian police.

Servia, on the contrary, has always looked to Russia as its protector against the aggressions of the Austrians. As a natural political result Bulgaria has found it necessary to maintain an understanding with Austria, to counteract the continual Russian intrigues against Bulgarian independence. Aside from that policy, of which the mass of the people know little, the Bulgarian has little sentiment to waste for the "Schwab," as he calls all Germans. In any general upheaval it is more than likely that politics would be forgotten if the will of the people were consulted, and Bulgaria would stand side by side with the Russians.

With the exception of the northern Albanians, who are chiefly adherents of the Roman Catholic Church, all the Christians of the Balkan countries belong to what is generally known as the Eastern, or Greek, Catholic Church. At one time it was really the Greek Church, with the Patriarch at the head, which included them all within its flocks. But after the liberation of Servia and Bulgaria these countries formed separate churches, between which and the original Greek Church there existed an animosity which was not felt toward the Roman Church. As the various governments have warred for territory, so these churches have fought for adherents. The original Greek Church carried its propaganda so far that it organized bands of armed men who overran parts of Macedonia, forcing the adherents of the other churches to declare themselves Greeks, the alternative being the destruction of their villages, cattles, and even themselves and families. Nor were these empty threats; actually thousands of people, both men and women, were killed by these terrorists of the Church and dozens of villages were burned. The peasants, on their part, organized armed bands to protect themselves against the Greek Church, and many were the bloody fights engaged in by these armed bands, the Turkish soldiers supporting the forces of the Church while the peasantry gave aid and comfort to the informal militia bands. Hardly a peasant in the mountain regions but has been out at least once in a general or local insurrection against the Turks or against the terrorist bands of the Greek Church.

ITALY'S HATRED OF AUSTRIA

WHY IT HELD BACK FROM ITS ALLIES OF THE TRIPLE ALLIANCE

THE reason that Italy held off from its allies in the Triple Alliance is written large in her history. The grandfather of the present king of Italy, Victor Emmanuel, of Sardinia, with Cavour's guidance, made an alliance with Napoleon III and picked a quarrel with Austria in 1859 much as Bismarck in 1866 made a treaty with Italy and picked a quarrel with Austria. In each case these nation-builders deliberately provoked war as a means to the unification of their country. In the campaigns of 1859 Lombardy was taken from Austria. In 1866, in alliance with Prussia, Italy went to war with Austria again, this time, chiefly as a result of the Prussian victory at Sadowa, receiving Venetia from Austria. Austria was held to be the chief enemy of Italy's independence and unity. Despite this, however, in 1882 Italy joined Germany and Austria in the Triple Alliance. This unnatural alignment was entered into chiefly because France, Italy's normal ally, had blocked her colonial ambitions in Tunis. Yet the alliance never made Austria popular with Italians, nor did it cover the Mediterranean or the Adriatic. The head of the Adriatic is a constant source of enmity between Italy and Austria. In Trieste and Fiume, seaports of Austria, the population is chiefly Italian. Italy has always coveted not only these ports but the Albanian shore of the Adriatic as well. She looks with suspicion upon the German-Austrian attempts to dominate the Balkans. Early in the Italian-Turkish War Italy began to bombard the Albanian coast, then held by Turkey. She was immediately warned off from Avlona by Austria. This added fresh vigor to the old antipathy. Again, the tension over the control of the Adriatic was so acute during the Balkan War that there was even a possibility of hostilities between Italy and Austria. When, therefore, the question of renewing the Triple Alliance came up in 1913, it was only with great difficulty that Germany succeeded in getting Italy to join it again, even though it was only a defensive alliance and did not include the Mediterranean. The Italians look upon securing Trieste and the control of the Adriatic as the French look upon reconquering Alsace and Lorraine.

Austria stands fair in the path of this ambition. The memory of former wars and the recognition of present conflicting policies make the Italian people unwilling to support Austria. The Italian Government's decision that it was not bound to help Austria and Germany because they were not engaged in a defensive war relieved it from entering upon a warlike policy which would probably have failed of public support.

Moreover, Italy has nothing to gain by a war against the Triple Entente, unless it might be part of France's North African possessions. The chance of acquiring these would hardly be worth exposing a long coast line to the French and English Mediterranean fleets. On the contrary, a German-Austrian victory would almost certainly work harm to Italy's hope to control in the Adriatic.

"MADE IN GERMANY"

JEALOUSY OF "MADE IN GERMANY" — THE FLAG THAT FOLLOWS TRADE

"THERE," said a famous German diplomat, pointing to a box marked *Made in Germany*, "is the Briton's grievance against us. Too many things are made in Germany."

Germans generally believe that it is jealousy of Germany's phenomenal industrial progress and her fast growing merchant marine that has caused the talk of war between England and Germany for the last decade. In a measure this is true. The old agricultural Germany has become a vast workshop. It imports food for one seventh of its population of 64,000,000 people. It has become to a measure a nation like England that must have outside markets to prosper, for its home consumption will not take up the goods it makes. To get oversea markets it has built up its great merchant marine and to protect its merchant marine it has built its great navy. The German Government is intimately linked with German trade. German diplomacy, like most others, is "dollar diplomacy." Germany's foreign policies are designed to find larger markets for the ever increasing German manufactures. With Germany, as with other countries, the flag is likely to follow trade. German manufacturers want a trade outlet to the East. For example, the

German Government, through its Austrian ally, is trying to reach the Ægean Sea. In its rapid commercial and maritime rise the European countries that it has most often met in competition are England and France. Naturally their policies and their colonial empires were used to encourage their own trade rather than Germany's. To ensure the future of its foreign trade Germany has in the last decade risen to contest Great Britain's supremacy on the sea.

"Germany's expansion," says a writer in the New York *Evening Post*, "is a natural phenomenon. The country is overpopulated. It must expand. The Atlantic Ocean is a barrier to its westerly expansion. The north is uninviting. The south is being drained of its resources by active and intelligent inhabitants. The *Drang nach Osten* of German Imperialism is therefore inevitable. The line of least resistance points to the east, where fertile territory awaits development.

"Little wonder, then, that the attention of Germany's far-seeing statesmen has been directed toward Oriental countries, whose wealth of natural resources and genial climate combine to render them ideally attractive. The verdant vales and forest-clad mountains of Servia, Greece, and Bulgaria abound with raw material necessitated by Germany's increasing industries. Beyond the narrow watercourse intervening between Europe and Asia at the Dardanelles and Bosphorous lies Asia Minor, a land marvellously rich in minerals and susceptible of great agricultural development. Farther toward the dawning sun the exceedingly fertile Mesopotamian valley, once the granary of the civilized world, stretches between the western Euphrates and Tigris, and bids fair to provide humanity anew with vast supplies of grain and cereals.

"This is the vision which has dangled alluringly before the minds of German and Austrian statesmen, working hand in hand, Austria paving the way in the Balkans, Germany forcing herself successfully in the control of Asia Minor, which to-day is a German colony all but in name. By their joint efforts, the Teuton brothers have laid the foundation of an empire whose northern shores will be washed by the Baltic and whose southern boundary will be formed by the Persian Gulf."

To the east, in South America, in China, the great German fleets are carrying the products of German mills and German factories. That phenomenal growth, however, like most such things, has developed certain weaknesses. The iron ore of Germany is not inexhaustible and already the Krupps, the German steel king Thyssen, and others have gone into Scandinavia, into Belgium, and into Morocco. As Germany is likely to need raw materials from abroad in the future, it already is a great borrower of capital. There is not money enough in the country to finance its industry. But over the border in France there are available funds. So in times of peace the French bankers finance German industry. But in times of war or threatened war there is no French money to be had. In the fall of 1911 for instance, when the Agadir incident seemed capable of producing war between the two countries, Germany had to borrow 60 million dollars from the United States at twice the usual interest rate. It is generally believed that Germany's financial dependence prevented a war in 1911. Since then both Germany and France have been hoarding gold for the struggle which is now on.

HOLLAND DEFENDED BY WATER

BY LETTING IN WATER THAT KEEPS OUT THE ENEMY

WATER is the only means of defense of the low countries. Belgium in her splendid fight against Germany's breach of her neutrality has had the advantage of the high hills which make the eastern frontier of her country easily defendable. The Kingdom of the Netherlands has no hills and to keep the heart of the country intact it is obliged to sacrifice many miles of territory which during the course of ages she has gained upon the ocean. Instead of a defensive line of hills Holland has a defensive line of water. The Dutch government never has been very liberal with the details of its waterline defense and the fortifications which in time of peace look like artificial hills covered with a luxurious coat of grass, can never be approached by the curious tourist without an immediate warning not to come too near and to refrain from getting a very thorough look at these strangely shaped mounds.

In case of danger the government would be removed from The Hague to Amsterdam. The troops in the outlying provinces would slowly retreat, destroying the bridges across the large southern rivers and thus stopping the progress of the enemy for several days. They would then occupy the fortifications around Amsterdam and make ready for a siege. The German invader might come as far as the dikes of the old bed of the river Rhine but from there on he would meet with grave difficulties. The large artificial lake which would be formed by opening the locks of the canals near Ymuiden and

Katwyk and the dikes near Amsterdam would, within twenty-four hours cover the entire countryside with a coat of water which is too deep to be crossed by a wading force, and which at the same time is too shallow to allow the use of armed vessels. It is true that modern siege guns might fire across this expanse of water. But the nature of the ground of the outlying territory is such that it will be so thoroughly drenched after a few hours contact with water that no heavy siege gun can be posted upon the muddy substance.

The system of defense is a desperate one. It will mean the loss of untold millions. It will mean the undoing of the work of five or six centuries. But in case the independence of Holland is attacked it is the only means by which the people can show their aversion to foreign domination; and in the past they have several times made the sacrifice.

WHAT AMERICA THINKS OF WAR

A UNIVERSAL FEELING THAT THE KAISER HAS FORCED ON THE CONFLICT

BY

C. D. M.

AT THE outbreak of the great war in August, 1914, I made it my business to ramble about the streets of New York among the crowds watching the newspaper bulletins, at cafés, on street-cars, talking with everyone I came across. The current of popular feeling was not difficult to trace. Denunciation of the Kaiser was in most cases a sure passport to the approval of the little knot of listeners who gather to every argument. From the Battery to the Bronx, everywhere I found a definite anti-German sentiment. Not against the German people, of course, who are bound to us by close ties of blood and commerce; but against the Kaiser and the whole armor-plated superstructure of German militarism which seems to have cudgeled into war a people flourishing in the arts of peace, a people whose genius is for literature and art and commerce, the kindest-hearted people in the world. Sympathy with the Germans there exists in abundance, and horror at the task which their troops are called upon to perform. But approval of the German war office? No! Unless it comes from Germans or Austrians themselves. Near the *Staats-Zeitung* office, or at the Kaiserhof, Lüchow's, the Hofbräu, Little Hungary or any other of the well-known pan-German restaurants one may hear "Hoch der Kaiser" uttered in all sincerity; but even there one finds thoughtful souls who think that the War Lord is costing the Fatherland dear.

Any serious attempt to find the prevailing national sentiment behind the street clamor must reckon with the tremendous growth of socialistic and anti-autocratic feeling which the war is causing. A Europe generally undesirous of war has been hurried into conflict by a few men — such is the prevailing idea.

The death of M. Jaurés, foully murdered for having been brave enough to protest against warlike preparations, has not gone unnoticed.

A handbill on the street announces a big anti-war meeting of socialists. The legend began:

"WAR IS HELL
And the workers of the world
Are roasted in its fires."

The sentiment is crudely expressed but can any one doubt its essential truth? So in a way the war is acting as a terrible public educator.

"I hope the war will be sharp enough to cure the Germans of their Kaiser folly" said one man to me. The New York *Evening Post* voices a large public when it prophesies the defeat of the Kaiser's armies and says:

"Out of the ashes must come a new Germany, in which pure democracy shall rule, in which no one man and no group of professional man-killers shall have the power to plunge the whole world into mourning. If this be treason to Germany, our readers must make the most of it. To our minds, it is of profound significance that so many Americans are saying to-day: 'We wish that the Kaiser might be beaten and the German people win.'"

Undoubtedly Americans are realizing (what has never been so plainly brought home before) the cruel folly of a nation hurried into war by an unrepresentative military clique. It is significant that so many editorial-writers have now for the first time appreciated the value to this country of President Wilson's policy in Mexico.

In the crowd circulating in front of the Horace Greeley statue by the *Tribune* Building I asked fifty men of all classes, all Americans as far as I could judge, whether they were for the Germans or against. The count was 8 for and 42 against. If hard words could have killed the Kaiser, he would have perished speedily on City Hall Square. The verdict of the American people undoubtedly is that the war was "Made in Germany."

CHRONOLOGY OF THE DIPLOMACY THAT LED TO WAR

ON JUNE 28th a Slav who thought he was a patriot killed the German Archduke Francis Ferdinand, heir to the throne of Austria. An inquiry was begun in which evidence was introduced to show that the assassin's work was part of a plot for the revolt of the Southern Slav provinces of Austria, instigated by Servians if not by the Servian Government. On July 23d, however, before the investigation was completed, Austria sent an ultimatum to Servia demanding that it use every means in its power to punish the assassins and also to stop all further anti-Austrian propaganda. Austria demanded that she be permitted to have representatives in the work of investigation.

JULY 24TH

On July 24th, Russia joined the little Slav country in asking for a delay. Austria refused to grant this.

25TH

On July 25th, ten minutes before 6 p. m., the hour when the ultimatum expired, the Servian Premier gave his reply to the Austrian Ambassador at Belgrade: Servia agreed to all the conditions and apologies demanded by Austria, except that allowing Austrian officials to participate in the inquiry to be conducted in Servia into the assassination of the Archduke. Even this was not definitely refused.

27TH

On July 27th, the Austrian foreign office issued a statement in which appeared these words:

"The object of the Servian note is to create the false impression that the Servian Government is prepared in great measure to comply with our demands.

"As a matter of fact, however, Servia's note is filled with the spirit of dishonesty, which clearly lets it be seen that the Servian Government is not seriously determined to put an end to the culpable tolerance it hitherto has extended to intrigues against the Austro-Hungarian monarchy."

Russia notified Austria that it could not allow Servian territory to be invaded. The great Slav nation had come to the rescue of its little kinsman. Semi-officially, Germany let it be known that no one must interfere with the Austrian-Servian entanglement — an intimation that Germany would back Austria.

To stem the trend toward war Sir Edward Grey, the British Foreign Secretary, made the definite proposal that mediation between Servia and Austria be undertaken by a conference of the Ambassadors in London. France and Italy accepted the proposal. Germany and Austria declined.

28TH

On July 28th, came the official announcement that turned Europe into an armed camp:

VIENNA, July 28.— Austria-Hungary's declaration of war against Servia was gazetted here late this afternoon. The text is as follows:

"The Royal Government of Servia not having replied in a satisfactory manner to the note remitted to it by the Austro-Hungarian Minister in Belgrade on July 23, 1914, the Imperial and Royal Government finds itself compelled to proceed itself to safeguard its rights and interests and to have recourse for this purpose to force of arms.

"Austria-Hungary considers itself, therefore, from this moment in a state of war with Servia.

(Signed) "COUNT BERCHTOLD,
"Minister of Foreign Affairs of Austria-Hungary."

29TH

On July 29th, the Czar issued an imperial ukase calling all reservists to the colors.

On July 30th, the German Chancellor, Von Bethmann-Hollweg, showed where he stood in the following telegram to the German Ambassador at Vienna:

"We cannot expect Austria-Hungary to negotiate with Servia, with whom she is in a state of war. The refusal, however, to exchange views with St. Petersburg would be a grave mistake.

"We are indeed ready to fulfil our duty as ally. We must, however, refuse to be drawn into a world conflagration owing to Austria-Hungary not respecting our advice. Your Excellency will express this to Count von Berchtold, Austro-Hungarian Foreign Minister, with all emphasis and great seriousness."

In reply to this communication Count Berchtold told the German Ambassador that the Austro-Hungarian Ambassador at St. Petersburg had already been instructed to begin negotiations with Sergius Sazonoff, the Russian Foreign Minister. But nothing came of these efforts.

30TH

On July 30th, Germany asked Russia to stop its mobilization and asked for a reply within twenty-four hours. England notified Germany that if a general conflict should occur it could not stand aloof and see the balance of power in Europe destroyed.

31ST

On July 31st, Premier Asquith announced in the British House of Commons:

"We have just heard, not from St. Petersburg, but from Germany, that Russia has proclaimed the general mobilization of her army and her fleet, and that, in consequence of this, martial law is to be proclaimed in Germany.

"We understand this to mean that mobilization will follow in Germany, if the Russian mobilization is general and is proceeded with."

Russia paid no attention to the German ultimatum, but M. Gorymykin, president of the Council of the Empire, issued a manifesto which read:

"Russia is determined not to allow Servia to be crushed and will fulfil its duty in regard to that small kingdom, which has already suffered so much at Austria's hands."

The German Ambassador, Baron von Schoen, went to the French foreign office and expressed the fear that dangerous friction might arise between the Triple Alliance and the Triple Entente in the event of the Powers of the Triple Entente not taking steps to localize the conflict between Austria and Servia.

AUGUST 1ST

On August 1st, the German Ambassador handed the declaration of war to the Russian Foreign Minister at 7.30 P.M.

The French Government issued a general mobilization order.

2D

On August 2d, Germany began the invasion of France through the Duchy of Luxemburg. As this territory was neutralized by the Powers, including Germany, in 1867, this act was generally criticized as involving a breach of treaty. England asked Germany if she would respect the neutrality of Belgium. Germany replied that she could not answer the question at that time. The British Cabinet spent the day in secret session discussing what attitude England should assume.

3D

On August 3d Germany sent an ultimatum to Belgium demanding free passage for her troops. Germany said that it already had information that France was to use Belgium as a military base. Belgium refused entrance to German troops and demanded that Germany respect her neutrality. She followed up her reply by proclaiming martial law. The French Government declared martial law in France and Algiers.

Sir Edward Grey, the British Foreign Minister, in the House of Commons, read a telegram addressed to King George by King Albert of Belgium, asking "the diplomatic intervention of Your Majesty's Government to safeguard the integrity of Belgium." So far as England's treaty obligations with France were concerned, said Sir Edward, "we have perfect freedom to decide." For years England had "had a friendship with France. Whether that friendship involves obligations, let every man look into his own heart and feelings and construe the obligations for himself. If the German fleet bombarded the unprotected French coast," he added, "England could not stand aside with its arms folded." The German Ambassador had made a strong bid for British neutrality. The Emperor had promised not to attack the northern and western coast of France if England would remain neutral. John Redmond, the Nationalist leader, aroused great enthusiasm by pledging the support of all Irishmen, Protestant and Catholic, to whatever course England decided on.

Italy proclaimed her neutrality. Although a member of the Triple Alliance, this alliance, her statesmen explained, was intended to protect the parties to it against an attack. Italy interpreted Germany's and Austria's acts as amounting to an aggressive war.

The German Emperor gave the Russian Ambassador his passports.

4TH

On August 4th, England sent an ultimatum to Germany, demanding a satisfactory reply by midnight on the question of the neutrality of Belgium. King George's proclamation commanding the mobilization of the British Army was read from the steps of the Royal Exchange. Parliament voted a war credit of $525,000,000. No reply having been received from Germany the British foreign office announced that a state of war existed with Germany, dating from 11 P. M. August 4th. Meanwhile Germany had given his passports to the British Ambassador in Berlin.

5TH

On August 5th, President Wilson offered the good offices of the United States in an attempt to bring about a settlement of the European difficulties. The Germans began an attack upon Liège, Belgium, and were repulsed.

6TH

On August 6th, Austria-Hungary declared war on Russia. The Austrian Ambassador left St. Petersburg.

7TH

On August 7th, the German Government used strong representations to Italy, in its efforts to enlist its participation in the war. Italy, however, maintained her neutrality. The Kaiser issued a proclamation asserting that jealousy of German progress was the real cause of the war.

8TH

On August 8th, Portugal announced its decision to support Great Britain.

9TH

On August 9th, Servia declared war against Germany in order to get rid of the German Ambassador.

10TH

On August 10th, France declared war on Austria as a result of Austrian troops aiding Germany.

13TH

On August 13th, Austria and Great Britain each declared war on the other.

THE ROYAL RELATIVES OF EUROPE

EUROPE at war can almost be likened to a huge family quarrel. The royal houses, especially of the countries which are most vitally concerned by the war, are practically all of the same Germanic stock, and almost of one blood. There have been so many intermarriages between these houses that German blood dominates every European throne with the exception of the two small kingdoms of Servia and Montenegro.

In several great family groups the custom of intermarriage is continuously carried on from generation to generation, but very seldom extends to the families of other groups. Sometimes, as between the House of Hapsburg and the royal House of Hohenzollern of Prussia, a direct matrimonial alliance almost never occurs; there has not been a marriage between these two houses within the last two hundred years. In the south of Europe the houses of Hapsburg, Savoy, Bavaria, Saxony, and Bourbon seem to form one combination of these family groups, while in the north the principal combination is made up of the houses of Hohenzollern-Prussia, Great Britain, Denmark, Russia, and the Saxon Duchies.

All the reigning princes of Northern Europe are closely related in this way. Thus, Emperor William of Germany is a first cousin of King George V of Great Britain and Czar Nicholas II of Russia. George and Nicholas are first cousins through their mothers, who were daughters of the King, Christian IX of Denmark. William II of Germany is the first cousin of George V, as his mother, Victoria, was the sister of George's father, Edward VII of Great Britain. Moreover, Nicholas married another first cousin of both George and William, the Czarina's mother being another sister of King Edward VII. Finally George, William, and Nicholas are, through their fathers, great-grandsons of Charles, Duke of Mecklenburg-Strelitz, who died in 1752; and William and Nicholas are descended from King Frederick-William III, of Prussia. Other cousins of King George and Czar Nicholas are Christian X of Denmark and Constantine I of Greece.

There are in all more than forty sovereign houses of Europe, but all do not reign over independent lands or principalities. Although many of these houses possess only the title of sovereignty and the right of royal privileges, they are equal in rank to all reigning houses, and their members intermarry freely without loss of title or rank. This is a limited class, however, for below these in rank are other houses designated as "mediatised" houses, and ranked below these in turn are the non-royal houses.

Of these sovereign houses of the first rank, many have arisen from cadet lines of older houses. The most striking development of such a cadet line to royal power is that of the House of Saxe-Coburg-Gotha. To-day princes of this house are reigning in Great Britain, Belgium, and Bulgaria, and one of them also held the throne of Portugal until that country became a republic. Princes of the cadet House of Oldenburg to-day reign in Denmark, Greece, Norway, and Russia. The House of Bourbon, at one time mighty in the extent of its cadet lines, ruled in France, Spain, Naples, and Parma. The princes of Hohenzollern to-day reign in Prussia and Roumania.

THE HOUSE OF HOHENZOLLERN–PRUSSIA: In Prussia, the eldest son is known as the Crown Prince; all other males of the family become Princes of Prussia. *Emperor William II of Germany* has six sons, four of whom are married. The tendency of this generation is to go northward for their matrimonial alliances. There seems to be a tendency to solidify all parts of the German Empire by bringing all parts of other princely possessions into closer contact with the royal family. The marriage between the Emperor's daughter, Victoria Louise, and the young prince of Cumberland, now the Duke of Brunswick, was also probably made with this end in view.

THE HOUSE OF HAPSBURG–LORRAINE: This family, belonging to the great family group of Southern Europe, is mainly allied with the houses of Bourbon-Sicilies, Bavaria, Bourbon-Parma, Spain, Savoy-Italy, Belgium, and Saxony. The family takes its names from its earlier possessions, the Duchy of Lorraine, which it gave up when the first of its princes, Francis-Stephen of Lorraine, married the Austrian heiress of Hapsburg, Maria Theresa, and succeeded to the empire.

The *Emperor Francis Joseph of Austria-Hungary* is eighty-four years old and has reigned since he was eighteen. His favorite brother was known as Maximilian, the short-lived Emperor of Mexico. His grand-nephew, the Archduke Charles Francis Joseph, is next in line of succession. He is twenty-seven years of age, the son of the Archduke Otto, and Marie Josephine, sister of the King of Saxony. He is married to Zita, Princess of Parma.

Alfonso XIII, King of Spain, is the only ruling connection of Emperor Francis Joseph, with the exception of King Frederick August III of Saxony who married an Austrian Archduchess. The King of Spain inherits the famous "Hapsburg lip" which is seen in so many of the male members and descendants of this family — a heavy, overhung, pendant lip.

THE SAXON HOUSES: The Saxon Royal House has given more kings and important princes to Europe throughout its history, and

to-day is better represented by descendant sovereign families than any other royal line. After many early vicissitudes it divided definitely in 1640 into two branches, Saxe-Weimar and Saxe-Gotha. Saxe-Gotha again divided in 1672 into four main sub-branches, Saxe-Gotha Altenburg, Saxe-Meiningen, Saxe-Hildburghausen, and Saxe-Coburg-Saalfeld.

The Family of Saxe–Coburg–Gotha: From the least important this family has come to be the greatest and largest of the Houses of Saxony and has already given birth to four lines of kings:

1. Prince Leopold in 1816 was married to Charlotte, only child of King George IV of Great Britain and heir to the British throne. But Princess Charlotte and her baby both died in 1817. Later, probably because of his importance through this marriage and because of his well-known popularity, the Belgian people, when they became an independent nation in 1831, offered him that throne; he accepted and became the first King of Belgium as Leopold I, and the founder of the present line of kings of Belgium. The present *King Albert of Belgium* is his grandson.

2. In 1818 Leopold's sister, Victoria, was married to Prince Edward of Great Britain. The only child of this marriage was Queen Victoria, who succeeded to the English throne in 1837. Prince Albert of Saxe-Coburg-Gotha became the husband of the Queen in 1840, the Prince Consort of Great Britain, and the founder of the new German dynasty in England.

3. Of the children of Prince Ferdinand of Saxe-Coburg-Gotha, the eldest of his three sons became by his marriage to Maria II, Queen of Portugal, titular King of that country as Ferdinand II, and so founded the Saxe-Coburg dynasty of Portugal.

Manuel II, ex-King of Portugal, through his grandmother, Princess Maria-Pia of Savoy, is related to the royal family in Italy, as she was a sister of King Humbert I of Italy and also of Amadeus of Aosta, who was King of Spain from 1870 to 1873. Through his wife, he is the son-in-law of William, the present royal prince of Hohenzollern, and a nephew of Ferdinand, Crown Prince of Roumania.

4. The youngest son died childless and the second son, August, became the founder of the German branch of this family. August married a Princess of Orleans and of this marriage in 1843 there were four children, three of whom are now living. The youngest son was elected Hereditary Prince of Bulgaria in 1887 and became its Czar (*Czar Ferdinand I of Bulgaria*) in 1908; he founds a new reigning dynasty, the fourth, of the Saxe-Coburg-Gothian family.

All the heads of these Saxon families — the reigning princes — are Dukes. This title in Germany and Austria is higher than that of Prince and indicates, along with the increased dignity of the title, the holding and government of landed possessions. Dukes rank between Kings and Princes; Grand Dukes are a higher class of Dukes and are Kings in every way except in actual title.

The family name of this illustrious House of Saxe-Coburg-Gotha is Wettin. So it is, therefore, correct to speak of the King of Great Britain as George Wettin, the King of Belgium as Albert Wettin, and the ex-King of Portugal as Manuel Wettin, etc.

The Royal Family of Great Britain: Although the Saxe-Coburg-Gotha dynasty was founded in Great Britain by the marriage of Prince Albert to Queen Victoria of the House of Brunswick-Lüneburg, the royal dynasty really began with the accession of Queen Victoria's oldest son to the throne as King Edward VII. His son, *King George V of Great Britain*, has three sisters, of whom one is Maude, the Queen of Norway. King George V is brother-in-law to King Haakon VII of Norway. He is first cousin on his father's side to Emperor William II of Germany and his sister, the Queen of Greece; to the Czarina Alice of Russia; to the Crown Princess Marie of Roumania; and to Queen Victoria-Ena of Spain. On his mother's side King George is first cousin to King Christian X of Denmark, King Haakon VII of Norway, to King Constantine I of Greece, and to Czar Nicholas II of Russia.

The Royal Families of the House of Holstein-Oldenburg: The kings of Denmark, Greece, and Norway, and the Emperor of Russia are all descended in direct line from the early German kings of Denmark and Norway.

The Royal Family of Denmark: King Christian IX (1818-1906) and Queen Louise had three sons and three daughters who all became famous. The eldest son succeeded his father as King Frederick VIII, and his eldest son in turn succeeded him as *King Christian X of Denmark*. The eldest daughter became the wife of Edward, Prince of Wales, and is now the Queen-Mother of Great Britain. The second son, Prince William, was elected as King of Greece, and began his reign there in 1863, as King George I. His eldest son, Constantine, now reigns as *King Constantine I of Greece*. Constantine is married to Sophia, a sister of the Emperor of Germany. The second daughter of King Christian was the wife of the Czar Alexander III of Russia, and is, therefore, the Queen-Mother of that nation. The second son of Frederick VIII is Prince Charles, who was elected *King of Norway*, as *Haakon VII*.

The Russian Royal Family: There has not been a Slavic Emperor in Russia since the bloody days of strife and intrigue following the death of Peter the Great. The male line of the House of Romanoff died out. The present *Czar Nicholas II of Russia* belongs to a wholly Germanic family.

King Peter I of Servia is married to Princess Zorka, the sister of the King of Montenegro.

King Nicholas I of Montenegro married Milena Vucotitch. Of this marriage there are six daughters and three sons: the third daughter is *Queen Helen* or Elena *of Italy*.

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WAR AND WASTE

DR. DAVID STARR JORDAN in his book, "War and Waste," gave the following graphic prophecy of the European war. His calculation is of a war involving England, Germany, France, Austria, Italy, Roumania, and Russia. All these countries, save Italy and Roumania, are engaged as this is written, and they may be drawn in:

"What shall we say of the Great War of Europe, ever threatening, ever impending, and which never comes? We shall say that it will never come. Humanly speaking, it is impossible.

"Not in the physical sense, of course, for with weak, reckless, and godless men nothing evil is impossible. It may be, of course, that some half-crazed archduke or some harassed minister of state shall half-knowing give the signal for Europe's conflagration. In fact, the agreed signal has been given more than once within the last few months. The tinder is well dried and laid in such a way as to make the worst of this catastrophe. All that Europe cherishes is ready for the burning . . .

"The gains of war and war talk go to the vultures. The cost falls on the people. Whatever else happens, the common man stands to lose in war."

Dr. Jordan believes that the expenses of the proposed general war have accurately been calculated by Prof. Charles Richet of the University of Paris in the following tabulation which is referred to by Alexander Dana Noyes on page 124 of "The War Manual."

DAILY COST OF A GREAT EUROPEAN WAR

Feed of men	$12,600,000
Feed of horses	1,000,000
Pay (European rates)	4,250,000
Pay of workmen in arsenals and ports	1,000,000
Transportation	2,100,000
Transportation of provisions	4,200,000
Munitions: Infantry 10 cartridges a day	4,200,000
Artillery: 10 shots per day	1,200,000
Marine: 2 shots per day	400,000
Equipment	4,200,000
Ambulances: 500,000 wounded or ill ($1 per day)	500,000
Warships	500,000
Reduction of imports	5,000,000
Help to the poor (20 cents per day to 1 in 10)	6,800,000
Destruction of towns, etc.	2,000,000
Total per day	$49,950,000

NEW WINGS FOR BUSINESS

HOW LAMSON CUT A CROQUET BALL AND BROUGHT FORTH NINETY-EIGHT VARIETIES OF SERVICE! SOME AMAZING ACTIVITIES: CARRIER EXTRAORDINARY OF MONEY, MAIL, MERCHANDISE, BOOKS, DOCUMENTS, POWDER, PROJECTILES, HATS, SHOES — WHATEVER YOU WILL. BETTER BUSINESS — BIGGER PROFITS

BY

F. BURNHAM McLEARY

BACK in the Golden Age, when Vulcan was Captain of Industry, it is reputed that a host of winged messengers were always at his beck and call. In those days the lightning was still in the sky. Benjamin Franklin had not yet been heard from.

Now, somehow or other, with the dawn of the Electric Age romance languished, and all these lightsome messengers took flight. Meanwhile, in their splendid offices, our modern captains of industry longed for a service that would lift the burden of detail and intelligently scatter it in a thousand different directions. What they finally found — and how they found it — is the theme of this story.

PRESENTING LAMSON, WONDER-WORKER

Up on the Mohawk River — Schenectady, to be exact — a group of more than one hundred and fifty buildings are forever humming in an effort to supply the world with things electrical. Consider for a moment the volume of mail, of orders, of blue-prints and memoranda, that every day must be sent out among the 15,000 workers. They themselves are scattered over a floor space of two hundred acres. Consider the need for a service that is instant, precise, and unfailing!

Forgetting now the swift little agents of the gods, let me introduce "Lamson," the impersonal hero of this romance. It is to him — or perhaps I should say, to the system that bears his name — that this greatest of electrical plants is indebted for its speedy and reliable messenger service. Thanks to the Lamson System, over 15,000 pieces of mail — to say nothing of messages and blueprints innumerable — are daily despatched at express-train speed to all parts of the offices and factories of the General Electric Company. Moreover, they are frequently hastened on their way by sundry other devices — all of which, after the methods of Darwin, may be directly traced to one primordial croquet ball! Here follows the authentic story of their origin, now published for the first time:

HOW A CROQUET BALL WENT INTO BUSINESS

In the days of cash-boys and one-horse buggies, when the business world was still asleep, there lived a man named Lamson. He was only a shop-keeper, the proprietor of a little notion store in Lowell, Massachusetts, yet so attractively did he present his wares that often it seemed that the whole world was beating a path to his door. Strange as it may appear, on such prosperous occasions Lamson was well nigh driven to distraction. Money drawers would be rattling back and forth, cash boys would be rushing this way and that, and still poor Lamson and his clerks could not make change fast enough to satisfy his customers. In this dire emergency a brilliant notion came to him.

"Bring me a croquet ball," said he to one of his minions.

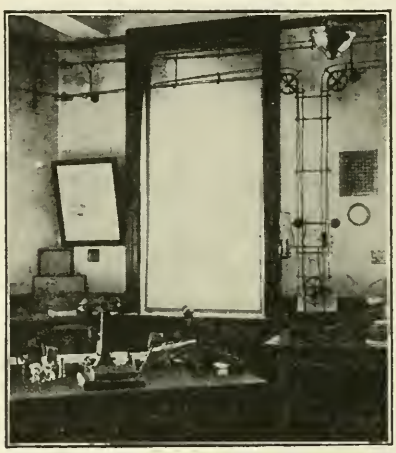
It was instantly forthcoming.

After a considerable struggle, Lamson sawed it in two. Then he clumsily hollowed it out, and devised a way to reunite the two hemispheres. When next the Lamson store was struck by a wave of prosperity, the proprietor met it fair and serene. "Change, Madam?" Jog-a-log-a-log — rolled the

croquet ball down a V-shaped trough that sloped to the cashier's desk. Crish — out came the crinkly greenback to make room for the silver. Then kerthump! — and along the return trough rolled the thirty-seven cents, bumpety-jingle! — Lamson had set in motion a System of Service that was to quicken the conduct of business all over the civilized world.

WHEREIN THE CROQUET BALL BECOMES TRANSMOGRIFIED

Rarely does the Creative Mind allow a potentially big idea to stay little. First in the evolution of the croquet ball came a tiny cash carrier that started from a spring-gun and sped over taut wires suspended from the ceiling. Next came a parcel-basket that hung from these same wires and made lively journeys to and fro. Third came a long procession of faithful messengers that jauntily traveled along a continuous cable. Lastly came pneumatic carriers — of which more later. Meanwhile, let me take passage on the moving highway and tell you just how it takes care of the pilgrims:



"... FLITS TO THE CEILING, CLIMBS SEVEN FLIGHTS OF STAIRS, CROSSES THE STREET, AND EMERGES IN THE TREASURER'S OFFICE, ON TIME TO THE MINUTE."

> An important paper, let us say, must be in the treasurer's hands at 10:30. Three minutes before that time, the auditor sets the index finger at X, drops the paper in a little tray, and straightway forgets all about it. Zip-p-p! Along comes a pair of nippers that pinches the paper, flits to the ceiling, disappears through a partition, climbs seven flights of stairs, crosses the street, and emerges in the treasurer's office, on time to the minute. Without a word it drops the message and flits away.

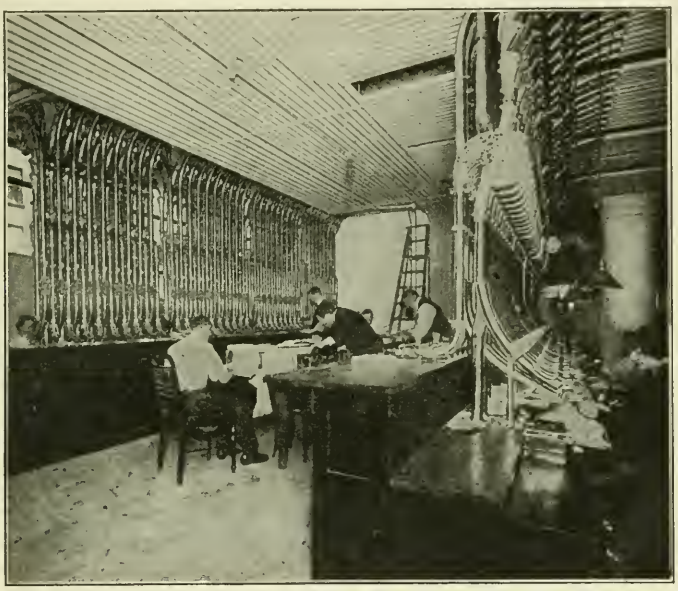
Perhaps it was the fascination that always attends the working out of a big idea, perhaps it was the desire to be more useful, perhaps it was just the ambition to make more money. At any rate, about the year 1890 the Lamson Company went into pneumatic tubes, and came out with the swiftest messenger service in the country. The big stores of the future, they figured, would need such service; so, too, would the office buildings, banks, hotels, and the great factories. The Lamson Company, as pioneers in the expeditious conduct of business, must keep up with this new era of speed or collapse by the wayside.

For all these reasons, the old croquet ball now took on a fourth shape: it became, if you please, the Lamson pneumatic carrier, a little missile that has since popped up by the thousands in practically every department store from here to Jericho. With it, as a logical outgrowth, came the eight-inch projectile for the quick despatching of first-class mail. It is interesting to note that it was John Wanamaker, Postmaster General, who first recommended pneumatic tubes for the handling of United States mail. That was in 1890. In 1913 — just to show how the world wags — approximately 18,154,000 letters journeyed through Lamson tubes *every day* — a total for the year of 5,682,202,000 letters!

HOW LAMSON TRIMS THE PAY-ROLL

Not long ago, I was inspecting the manufacture of automobile tops in a large factory in Detroit. It was the method of this manufacturer to cut the cloth to size and then to send it by messenger to the workmen, who tailored each piece to fit the individual car. They found that every now and then, in spite of the most scrupulous care, the finished cars would leave the department with strange little scratches on the bodies. Whence these came was a profound mystery. Then one day the superintendent watched the messenger boys

— and discovered the source of the scratches. Passing close to the cars, the boys little thought or cared about the superbly finished bodies. Why should they worry? This discovery meant the installation of a wire carrier system, whereby the merest pull on the spring-gun sent the basket speeding along an aërial trolley to the cutting department. Without a moment's delay back came the cloth in just the quantity wanted. The whole outfit was not especially elaborate, *yet greatly to the surprise of the superintendent two helpers whom he had regarded as indispensable were now no longer needed.*



A CENTRAL STATION IN ONE OF THE NEW YORK DEPARTMENT STORES. NOTE THE BULGING POCKETS IN THE TUBES AT THE RIGHT. A DEVICE INSIDE AUTOMATICALLY SEPARATES THE "CHARGE" CARRIERS FROM THE "CASH."

6,000 LETTERS DISTRIBUTED IN ALMOST NO TIME

Still conducting my investigations, this time in New York, I was directed to the Metropolitan Building. Two stories under ground, I came upon a battery of tubes, the terminal of a pneumatic system that radiates to ninety-six different stations. From the muzzles of these tubes kept popping long leather-jacketed projectiles, sometimes four or five a second. A squad of four men were returning the fusilade. I timed some of these projectiles. It was easy to tell when they arrived because the air supply was automatically "timed off" in order that the whole system could be operated at a minimum of expense. One carrier sped under the street and up to an office on the eleventh floor in thirteen seconds. The distance was surely not less than four hundred feet. A messenger boy would have needed at least six or seven minutes to deliver those documents, *and even then his schedule would have been contingent upon quick connections at the elevators.*

Once, so they told me, while the system was being extended, it was necessary for a time to employ boys to carry messages and deliver the mail. Thirty boys were required, yet it was not humanly possible to take care of the 6,000 communications that were daily received and transmitted, with anywhere near the promptness and certainty that Lamson had been accustomed to achieve, day in and day out. In fact the whole working efficiency of a great institution was materially impaired by this forced return to primitive methods.

ANOTHER OCCUPATION — NIMBLE CHANGE-MAKER

In spite of these valiant services, I am sure that we often fail to appreciate "Lamson," he operates so noiselessly and in such covert places. Who would guess, for example, while walking down the aisles of Altman's or Macy's in New York, Gimbel's in Philadelphia, Marshall Field's in Chicago, or Famous and Barr's in St. Louis, that under his very feet hundreds of dollars are likely enough speeding this way and that? Almost never do the carriers travel at less than twenty miles an hour; and they double that speed on the grades. From sales-girl to cashier races the money, and back flies the change, the whole transaction

completed in less than 30 seconds. For once in its checkered career money has no chance to talk.

All this great network that binds together the several departments, that provides for making change on any floor, in any corner, and arranges for the expeditious delivery of the thousands of parcels that are daily sent out from these giant stores, is one of the most surprising examples of business efficiency that the twentieth century affords. In Stern's, New York, for instance, one may see in the basement a long row of vertical pipes terminating within a wire cage, where some fifteen or twenty cash girls are busily making change. Now, here's a perplexity. Some of those sales slips are "charge" and some are "cash." How are they to be separated? The solution is decidedly picturesque — and typical of Lamson Service. When the regular carriers come whizzing through the tubes top speed, they strike a little trip-finger which saves them just in time from being ambushed. The charge carriers, on the contrary, are so constructed that they fail to engage it. Whereupon a spike jumps out from above and knocks them head over heels. They fall in a heap on the other side of the table.

Probably no system in the world so completely protects the merchant from petty thefts as this scheme for centralizing the change-makers. The sales-slips, numbered and made in triplicate, must represent the amount of the transaction, else the customer himself will protest. The cash record for the day must tally with the money received at the central station, else the auditing department, by the help of adding machines, will detect it inside of twenty-four hours. When some fifty or sixty people — or even five or six — must conspire before they can work chicanery, the chance for collusion is practically *nil*.

GATHERING AND SORTING 60,000 PARCELS

Did you ever wonder how that box of handkerchiefs or that fine Etruscan vase you ordered "sent out" ever got to your home so quickly? Let us suppose, for example, you have come in from the suburbs of Philadelphia to shop at Wanamaker's. You make, say, half a dozen purchases: a set of flannels, a bath robe, two or three turkish towels, a pair of slippers, a smoking jacket and the latest novel. A few hours later you get back home and find your trophies, all in one bundle, waiting in the hall for you. This is what has happened in the meantime:

One by one the separate packages, each marked with the same number, slide down a spiral chute, or — if the purchase is made on the first or basement floors — through a trap door under the counter, and at once start traveling along endless belts at the rate of 120 feet a minute. From perhaps six different directions the bundles make their way to the "trunk line conveyor," whence with hundreds of others they are presently swept off upon the assorter's table. A transfer system whereby all your parcels are labelled with the same number (756) now arrests progress via the City Delivery belt, or the Express, or Parcels Post, or C. O. D. Instead of following these channels, they travel along a special belt and are shortly assembled in the bin of the corresponding number. Once bundled, they join an endless procession of packages, from which they are shortly diverted to their particular "route" compartments, and are hustled away to the delivery wagons.

Taking this as an example, and bearing in mind the fact that during the Christmas rush Lamson takes care of 60,000 parcels a day at John Wanamaker's, one has only to contemplate the numberless transactions that take place in our giant retail stores, and to visualize the countless parcels that go out to all points of the compass, to perceive the debt that the American Department Store owes to Lamson. It is no exaggeration to state that but for Lamson and the Service Idea, the success of retail stores on such a prodigious scale would never have been possible.

LAMSON BECOMES LORD TREASURER

And now for some of the amplifications. Often in the course of a day's work it is necessary to send jewels or fine gold with safety and despatch. Here again is a task

which Lamson has taken upon himself, and it is interesting to see how well he performs it. Just as I was leaving Wanamaker's my attention was attracted by two brass tubes which terminated in a cage at one end of the watch counter. A Lamson carrier came shooting out, coursed around a retarding curve, and came to rest on a special shelf. The watch-maker produced a key, unlocked the carrier, and drew forth a watch. It had come down from the repair department on the tenth floor. It had dropped sixteen feet the first second, thirty-two the next, and sixty-four the next — yet so nicely had its reception been planned that the watch was as safe as if it had been all that time in the vest pocket of a magnate. In the other tube the watchmaker now inserted the empty carrier. It disappeared, sucked upward at the rate of thirty feet a second.

"ONE BY ONE THE SEPARATE PACKAGES START TRAVELING ALONG ENDLESS BELTS AT THE RATE OF 120 FEET A MINUTE."

STILL A NEW RÔLE — CUSTODIAN OF BOOKS AND DOCUMENTS

At the offices of the Curtis Publishing Company, which I next visited, I found these enterprising people employing Lamson for all he was worth. A pick-up system was conveying sundry memoranda to various desks in the subscription department. Priceless documents — magazines and contracts, I dare say — were being despatched by pneumatic tubes all over a city block. The boy who managed the thirty-two stations was under constant bombardment.

There, too, I also saw the automatic tray conveyor — another Lamson feature. From the outside of the shaft it looks something like a dumb waiter, but it carries itself in a much more intelligent fashion. For one thing, it keeps moving. For another, it discriminates. Open the slide, place a tray on the shelf, and set the index finger for a particular station. Half a dozen little catch-shelves may climb the elevator shaft and skip the tray before the right one comes along. Then the tray is lifted, borne to its destination, perhaps straight up to the ninth floor, and dropped automatically.

It is this type of conveyor in the big libraries that gets your books to you so quickly. In Boston, where books are so highly esteemed, Lamson may be seen at the Public Library trundling volumes out from the stacks and safely back again. I watched one of the basket-carriers loaded with books roll out along its steel rails to a position at the very brink of the elevator well. There it waited until the lift had returned from a trip and had snapped securely into place. Then it slid onto the elevator, ascended, and rolled out on a desk in the distributing department.

When the Duke of Marlborough visited the Boston Public Library on a recent trip to America, it was not the pictures of the Holy Grail by Abbey, or Sargent's "Prophets" that he found most interesting. Strangely enough, it was Lamson's pick-up system, his pneumatic tubes and automatic elevators.

"More polite than most *people*," remarked the Duke to the superintendent, as the carrier drew back to wait for the elevator to come to rest. He might also have added: "Far more capable, and far less expensive;"

for this has been proven time and again. Once in St. Louis it was necessary to remove 25,000 volumes from the Court House to the new law library on the seventeenth floor of the Pierce Building across the street. Every one of those 25,000 volumes traveled the whole distance on a Lamson conveyor; and thereafter the system was used to quicken the journey of books from library to litigant. Though so extensive a trip is not the rule, this St. Louis installation shows in a measure the high regard in which Lamson is held by the book people. A further indication is the use that is made of Lamson Service by still other libraries. Notable among them are the New Widener Library at Harvard, the Carnegie Institute at Pittsburgh, the New York Public Library, the Chicago Public Library, the Congressional Library at Washington, and the National Library at Rio de Janeiro.

LAMSON — POST-MASTER GENERALISSIMO

So much for the gentler pursuits. To me it is even more illuminating to reflect upon the varieties of service that Lamson daily performs for the business man. After the style of the modern romance, let us consider the Broker "on the Street." Among the many letters that come to his desk — all forwarded by Lamson tubes from the Grand Central and Pennsylvania Stations, or from branch post-offices — is an important communication post-marked South Chicago. Its history shows how Uncle Sam keeps Lamson forever on the *qui vive:*

ACTS 1 TO 5

Time: *only yesterday* 12.10 P.M.
Place: *South Chicago, Ill.*
12.10: Letter drops through the "special" window at the Stock Yards Post-office.
12.15: Letter is shot by compressed air through an eight-inch pneumatic tube at the rate of 30 miles an hour.
12.26: Letter arrives at the Chicago General Post-office, five and a half miles away.
12.28: Letter is relayed through a Lamson tube to the La Salle Street Station, half a mile distant.
12.30: Letter boards the Twentieth Century, and at 12.40 starts for New York.

ACTS 6 TO 10

Time: 9.40 *this very morning.*
Place: *New York City.*
9.40: The Twentieth Century pulls in at the Grand Central Station.
9.41: Mail pouches are removed from the mail car.
9.43: Letter shoots under 42d Street, down Fourth Avenue and Mulberry Street to the General Post-office.
9.54: Letter is relayed to the Wall Street Station by Lamson tube.
10.10: Messenger boy delivers the letter at the Broker's office.

And now the battle is on; the Broker is in the thick of it. Quick! A dozen telegrams! Who's the messenger? Lamson, again — shooting the telegrams so adroitly that although the offices of the Western Union and the Postal are at different distances, the messages arrive all at the same moment. Even yet it's Lamson who keeps things moving. A clerk O. K's the messages and places them in little trays. Click-click-click. . . . One after another the mechanical pick-ups snatch the telegrams and flit to the ceiling. Number 1 opens its fingers at Station A. The telegram flutters down through a hollow cylinder of dangling cords and lands right side up in front of the operator. Telegram Number 2 goes to Station E. Telegram No. 3, to Station X. Meanwhile, the Broker, still in the fight, has turned his mind to other devices. . . .

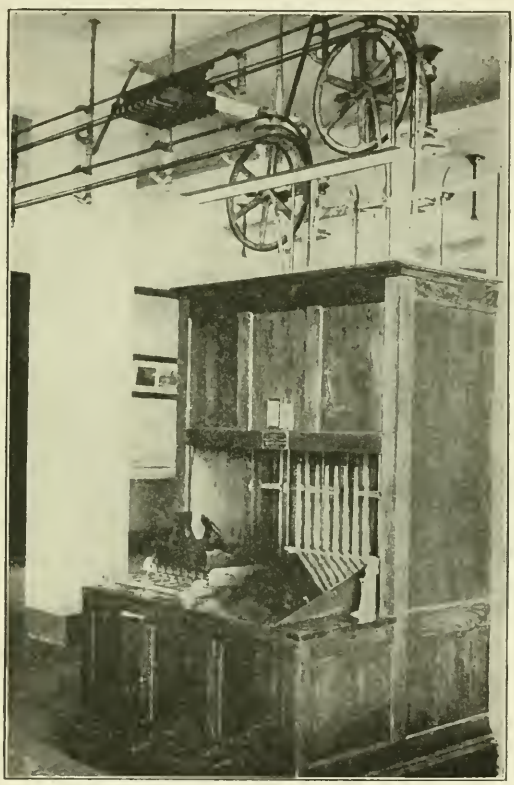
TAKING A FLYER IN STOCKS — AND STEAKS

An interesting figure was John W. Gates, in the days of his financial activity. Not a waking hour but he was close in touch with the money news of the world. In his room at the Plaza Hotel were private ticker, telephone, and Lamson tubes. The latter were piped direct to the central main office and through them came hundreds of messages — which, I dare say, his rivals would have given their eye teeth to read.

You, yourself, in ways that are less spectacular, make use of Lamson when you

least suspect it. In New York you call on a guest at the Astor, the Belmont, the Biltmore, the Ritz-Carlton, the St. Regis, the Waldorf, or at any one of a score of hotels; in Boston, perhaps it's the Copley Plaza; in Philadelphia, the Bellevue-Stratford; in Chicago, the Blackstone; in San Francisco, the St. Francis. . . . Your card fleets through Lamson tubes to the fifth, tenth, twentieth floor. In a jiffy back comes the response — Hall-maid to Lamson to Clerk, with an assist for the Force of Gravity. Over the same winged route fly letters, telegrams, checks, cash, keys — and, alas, the inevitable bills.

Perhaps your room is on the fourteenth floor; you wish for cigars and a dinner for two. Zip! The maid in the hall has shot the order to the butler's pantry, and the steak is already on the griddle. The same quick service at Sherry's and Delmonico's. So, too, at the finest clubs in America. Observe for yourself how Lamson serves you next time you call for your pipe, your bowl, and your fiddlers three.



A TRAY CONVEYOR IN THE WALKOVER FACTORIES. EIGHT CARRIERS MAKE A COMPLETE CIRCUIT OF THE THIRTEEN DEPARTMENTS EVERY SEVEN MINUTES. QUIETLY AND AUTOMATICALLY THEY CALL AT OFFICES ON FOUR DIFFERENT FLOORS.

HITTING IT OFF WITH THE BANKERS

It may be utterly fanciful, but I wonder if this pneumatic carrier of Lamson's did not acquire in previous incarnations a predilection for handling money. Certainly the extent to which it hob-nobs with bankers bears out the suspicion.

In Boston, for instance, I dropped in at the "Old Colony," the State Street Trust Company, the Merchants' National Bank, and the National Shawmut Bank. Lamson carriers were on the jump in all these places. In Chicago, last spring, I watched a score of little missiles popping out from their terminals at the Corn Exchange National Bank. In New York I lately pried into the affairs of the Guaranty Trust Company, the First National Bank, and J. P. Morgan & Co. Lamson was the trusted servant of all these great institutions. Sometime, when I am on the Pacific coast, I am going to renew associations in other places. I shall visit the First National Bank at Los Angeles and the Wells-Fargo Nevada National Bank in San Francisco.

Strange, perhaps, such a fascination; and if *money* were all they carried, I'll grant you they couldn't interest me. More often, however, it's papers, documents, and confidential information under lock and key. At the Hanover National Bank in New York, for example, checks, notes, etc., go up by tube to the eighteenth and nineteenth floors. At the Merchants' National Bank in Boston — one of the newest installations — letters are sent by tube to be signed just the minute the girls get them typewritten.

And now for a comparison. Transfer your thought from this splendid bank building to the largest mail order house in the world. Line the ceilings with Lamson tubes — pretty near six miles of them. Increase the bank's conservative mail pouch till it holds no less than a ton of correspondence. Stand at a central station while thousands of carriers shoot out at you.

Listen to a roar like the sound of a young cannonade. There! You now perceive why Sears, Roebuck & Co. are known all over the world for their promptness. Letters shoot through those tubes every day by the tens of thousands; every night sees those letters answered, and the goods ordered, shipped and billed — all because Lamson makes possible a practically instantaneous service between departments.

THOUSANDS OF DOLLARS SAVED

Practically instantaneous service! It is certainly startling what economies a system of Lamson tubes will bring about. Out at "The Hump," for example, I know of a Lamson installation that saved a railroad $50,000 inside the first four months. This particular equipment was at the freight terminals of the Chicago, Indiana and Southern Railroad, at Gibson, Indiana. The proposition that Lamson had to solve was the quick transference of bills of lading from arriving trains to "The Hump" (the central freight office, situated on a little eminence), and then from "The Hump" to the departing trains. The old way was by messenger boys. The distance was always half a mile or more; and sometimes a train and her entire crew would be held up for several hours, waiting for bills-of-lading. In bad weather a special locomotive was detailed to make the trips.

Now a curious thing about the part the Lamson Company played in the solution of the problem was that no one at the home office knew what the tubes were to be used for until a month after they had been installed. The business came unsolicited, it was a new departure in Lamson Service, and its application to railroad needs was due wholly to thoughtful analysis on the part of the railroad's executives.—All of which provokes me to observe that there are probably hundreds of instances right now — unknown to the business heads and unknown to the Lamson Company — where some feature of Lamson Service could be utilized to keep things moving, to eliminate the fallible human element, and to save both time and money. The greatest efficiency comes only to those who study their problems closest.

QUICKENING THE SPEED OF THE CANNON BALL

Nowhere is this truth better illustrated than in the gunpowder mills and the fighting towers. The first of the two systems is at the Winchester Repeating Arms Company (New Haven, Conn.). At these mills it is necessary to transport powder from the bunker house (four hundred feet removed from everything) to the various loading magazines. Boys used to do it. They do it still in some factories; and every so often you read of dangerous explosions. Lamson does it for the Winchester people; and at these factories explosions and injuries have been eliminated.

The second system — the bravest of them all — was wasting for a fight down at Vera Cruz while this article was being written. The ground end of the installations terminated in the magazines of the *Massachusetts* and *New Jersey;* the sky end was up among the eight-inch and twelve-inch guns. At the first provocation, so I am assured, both powder bags and shells would have shot up through these strong pneumatic tubes direct to the gunners. Eight-inch and twelve-inch shells would have made the journey this way, and at intervals of five and eight seconds respectively. Incidentally the larger shells weigh close to 900 pounds!

UNCLE SAM'S RIGHT HAND MAN

From all these things it is apparent that "Lamson" is in high favor with the Federal Government. Its functions in time of war I have mentioned. Some of its civil duties as post-master generalissimo, I have likewise sketched. One last patriotic service I must mention — a service which makes possible the expeditious handling of mail in our great post-offices.

Look behind the scenes sometime at Chicago, St. Louis, Washington — or at the splendid new post-office near the Pennsylvania Terminal in New York. The interior of these post-offices is just a vast network of Lamson devices — structural dumpcars on overhead tracks running automatically to any of a dozen stations and dropping thousands of letters into a

receiving hopper, endless belts conveying these letters to the cancelling machines, baskets singing along the wires and sweeping off special delivery letters and "nixies," tray conveyors carrying letters already faced and cancelled to their proper station, great runways through which the mail bags are despatched on endless belts to trucks or trains, and finally — this in New York — bucket lifts that hoist the mail bags direct from the incoming trains on the Pennsylvania to the post-office overhead, and chutes that send the outgoing bags directly into the mail cars.

A NOSE FOR NEWS

For my own part, scouting up and down the world and viewing "Lamson" in his multitudinous activities has given me a genuine respect for his ingenuity. Take your daily newspaper, for example — say the Atlanta *Journal*, the Birmingham *Ledger* or the Toronto *Globe*.—Or in New York, consider the staid and dignified *Times*. Between the hours of one and four in the morning 260,000 copies come hot from the press. Six giant octuples slap off the papers so fast that it makes one dizzy to watch them. But lo — as might be expected — right at the muzzle is Lamson, picking them up without the least smudge and whisking them straight up through the ceiling! It's the neatest scheme you ever saw. The papers fall from the press on an endless conveyor, each one lapping on the next. Held firmly between two tapes they thus travel, a great continuous newspaper, direct to the distributing rooms.

"CLIMBING FROM FLOOR TO FLOOR, RUNNING ALONG THE CEILING, PLUNGING THROUGH BRICK WALLS, CROSSING STREETS, — AND ALL THE TIME CARRYING ON ITS BROAD BELTS A STEADY PROCESSION OF STETSON HATS."

LIGHTENING THE WORK OF THE WORLD

And so they fly on these modern wings of business: money, merchandise, documents, books, letters, telegrams, way-bills, powder, projectiles, invoices, mail of all sorts, newspapers — all fleeting through the air in the swift despatch of the world's affairs. Meanwhile, the Lamson Company itself keeps everlastingly moving — as witnessed by recent notable achievements in the industries.

Among the enterprising manufacturers that have speeded up both office and factory routine by putting Lamson into harness are the Boston Woven Hose Company, the George E. Keith Company (Walk-over Shoes), the Elgin National Watch Company, the General Electric Company, and the John B. Stetson Company. Most fascinating of them all, I found to be the installation at the hat factories, where I saw in operation practically every form of Lamson service.

For the despatching of mail, orders, memoranda, etc., at the Stetson plant, a pick-up system has entirely replaced a large staff of messenger boys. One line serves six floors in four buildings. Another gives service between the five departments on the third floor and the Drying department on the sixth floor across the street. A third line connects the Leather department with the Soft Hat Trimming department.

And this is only a beginning. The same

extensive conveyor system that gathers 60,000 parcels a day from all over two city blocks and swiftly distributes them, may be seen at Stetson's, climbing from floor to floor, running along the ceiling, dodging beams, turning right angles, plunging through brick walls, crossing streets — and all the time carrying on its broad belts a steady procession of Stetson hats in every stage of manufacture. Even when finished and cased it's Lamson that conveys them to stock or shipping rooms. A special conveyor, which accommodates packing cases and boxes up to 120 pounds in weight, takes them from the first floor, by a vertical lift, to the fifth floor, and thence on endless chains to the warehouse.

Such efficient service in the Stetson factories — the largest hat factories in the world — leads to the reasonable prediction that inside of a few years scores of plants — and plants even more extensive than that of the John B. Stetson Company — will find their logical extension in the installation of Lamson Service. The Stetson people estimate that by eliminating in large measure their old burden of trucking, and by expediting material in its progress through the factories, they save every year the cost of the entire system. Only a large manufacturer can appreciate how much such economies mean to them, both in better hats and bigger profits.

LAMSON—ABSOLUTELY AT YOUR SERVICE

Now, though I am only an observer and do not pretend to expert knowledge in trade and manufacturing systems, one thing in particular impresses me as eminently fair and worth while:

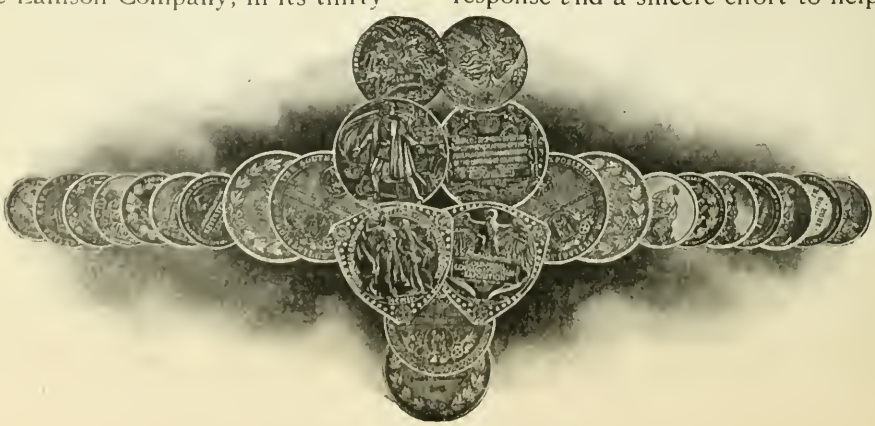
The Lamson Company, in its thirty-five years of experience, has acquired perhaps a greater fund of information concerning store, office and factory economies, as effected by mechanical, electrical and pneumatic carriers and conveyors, than any similar institution in the world.

No one whose business has expanded beyond a "one-man proposition" can tell whether or not he needs Lamson. The varieties of Service are infinite.

No one who is conducting business of big and far-reaching proportions can afford to dismiss the Lamson Service Idea without first giving it careful consideration. He may not be able to tell with certainty *how much* Lamson can save him, but he can feel sure it will save him *something*.

Now then, the Lamson Company has a force of trained engineers in all of the large cities. These men *can* tell where Lamson Service should be introduced, and what it will save; they are prepared to study your store, your offices, your factory, your business, and submit definite plans — *all at absolutely no expense to you*. If first you wish to acquaint yourself more fully with Lamson devices, they will send you booklets describing any or all of these installations.

That is my idea of an eminently fair and reasonable proposition. Some of the biggest merchants and manufacturers have thought so too; and have found the acceptance of it very much to their advantage. The address is The Lamson Company, 161 Devonshire Street, Boston, U. S. A. An inquiry will, I am sure, bring you a courteous response and a sincere effort to help you.



Hamilton Watch

The Watch of Railroad Accuracy

These Engineers, Conductors and Trainmen of Fast Limited Passenger Trains, and thousands more, carry the Hamilton Watch because of its accuracy.

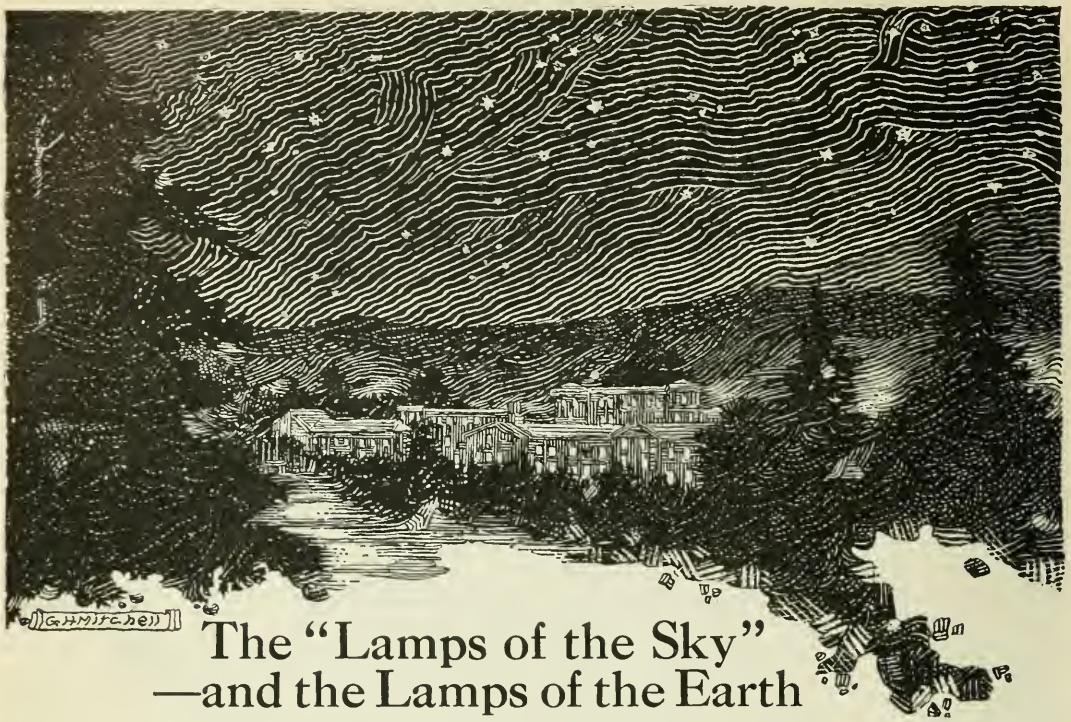
Railroad men's judgment of a watch commands respect. They agree on Hamilton Accuracy. Jewelers know how watches wear and they agree on Hamilton Durability.

Write for the Hamilton Watch Book—"The Timekeeper"

It pictures and describes the various Hamilton models and gives interesting watch information.

There are twenty-five models of the Hamilton Watch. Every one has Hamilton quality and Hamilton accuracy. They range in price from $12.25 for movement only (in Canada $12.50) up to the superb Hamilton masterpiece at $150.00. Your jeweler can show you the Hamilton you want, either in a cased watch or in a movement only, to be fitted to any style case you select, or to your own watch case if you prefer.

HAMILTON WATCH COMPANY
Dept. Q. Lancaster, Pennsylvania



The "Lamps of the Sky" —and the Lamps of the Earth

THOSE wonders of the heavens, studied always by a multitude of astronomers have been unfolded more rapidly because the scientists have *worked together*, comparing and sharing their individual discoveries.

In electric lighting the same principle of multiplying brain power is exemplified in MAZDA Service to manufacturers.

The sum of accomplishment in electric lighting science shines today in the MAZDA lamp, which at the present time gives from *three to six times as much light* as the old style carbon lamps at the same cost for electric current.

To *carry forward* their work on the great world-problem of the best and cheapest light, the distinguished technical experts in the Research Laboratories of the General Electric Company at Schenectady are pursuing ceaseless investigation and experiment. In their selective labors they are not only sharing the advantages of individual research and discovery in this country but are keeping in close touch also with great experimental laboratories of Europe.

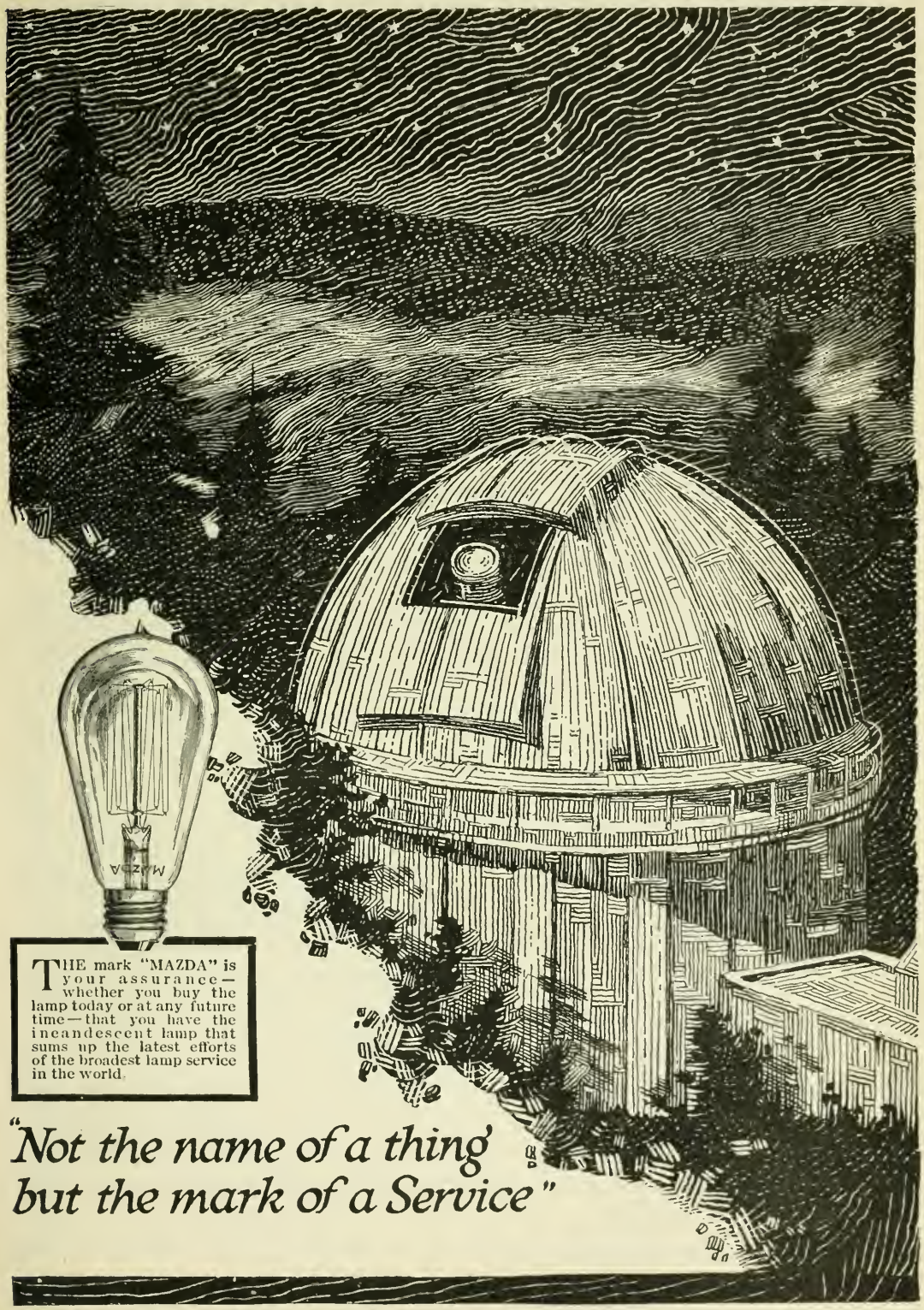
MAZDA Service means that the Research Laboratories are furnishing the fruits of the sustained investigation at home and abroad to the factories of the General Electric Company and of other Companies entitled to receive this Service and the progressive results of this Service to manufacturers, are embodied only in lamps that are marked MAZDA.

So that the mark MAZDA on an incandescent lamp means today, *and will always mean*, the operation of this important manufacturing aid—the concentration in this lamp of the latest and best thought of the world's masters of light.

GENERAL ELECTRIC COMPANY

MAZDA

4633

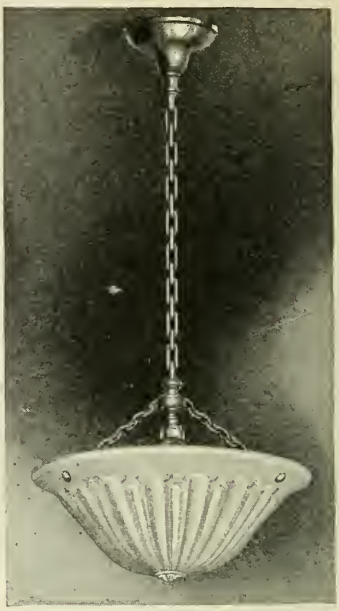

MAZDA
THE mark "MAZDA" is your assurance—whether you buy the lamp today or at any future time—that you have the incandescent lamp that sums up the latest efforts of the broadest lamp service in the world.
"Not the name of a thing but the mark of a Service"

Good Light

For the Home
For Business

Good light is soft, agreeable and easy on the eyes. It is neither brilliant nor dim.

Brilliant or dazzling light is the worst kind of poor light, and should be softened by globes, shades or bowls into an agreeable, comfortable illumination that is easy to read by, work by and live in.



Alba Bowl on Macbeth-Evans Fixture—an attractive and efficient lighting unit.

Macbeth-Evans Lighting Equipment

(with Alba and Decora Glassware)

makes seeing easy and comfortable, brings out the beauty of the surroundings, gets more and better illumination from the same current, softens the light and directs it where needed.

Send for one of these Lighting Pamphlets

1—**HOMES:** Good light in the home is beautiful, makes seeing easy and comfortable, the evening hours cheerful, and brings out the beauty of the surroundings. It prevents eye-strain.

2—**DEPT. STORES:** Customers stay longer and buy more where seeing is easy and comfortable, speak well of the store and visit it often.

3—**RESTAURANTS:** Good light attracts patrons and makes them more comfortable. It is soft, agreeable, restful, promoting relaxation.

4—**STORES:** Well-lighted stores and windows attract customers, and display merchandise well. Customers stay longer and buy more.

5—**OFFICES:** Good light means more work with fewer mistakes, less fatigue, without eye-strain. Seeing is easy and comfortable.

6—**CLUBS:** The illumination should be ample, restful, agreeable in color, beautiful, in harmony with the surroundings and entirely without strain.

7—**HOTELS:** Good light is beautiful, brings out the beauty of the surroundings, and makes seeing easy. People enjoy themselves more.

8—**BANKS:** Good light is handsome and in harmony with the surroundings. It makes seeing easy, often pays for itself by increasing efficiency and preventing errors.

9—**THEATRES:** Good light is subtle, soft, restful and cheerful. It is beautiful, in harmony with the surroundings, and creates a receptive attitude in the mind of the audience.

10—**HOSPITALS:** Light should be ample, cheerful, and restful for comfort and quick recovery of patients. Good light is needed in operating rooms for precision and accuracy.

11—**CHURCHES:** Light should be subtle, soft and agreeable. Harsh or brilliant spots, which distract eye and attention, should be avoided.

Reg. U. S. Pat. Off.

Use the Coupon: To get the best light *for your purpose*, send for one of the articles listed above, and for a Portfolio of Individual Lighting Suggestions.

Macbeth-Evans Glass Co Pittsburgh

Sales and Showrooms also in New York
Chicago, Philadelphia, St. Louis, Boston
Cincinnati, Cleveland, Dallas, San Francisco
Macbeth-Evans Glass Co Ltd Toronto

FOLD, TEAR OFF, FILL IN, MAIL

P 9-14

Send me Individual Suggestions and Lighting Information on Subjects

No....

Name.....

Street.....

City and State.....

Macbeth-Evans Glass Co Pittsburgh

Reprinted from New York and Philadelphia newspapers

In Time of Famine a Miller Who Raised Grain Prices Lost His Right Hand for It

—Old Danish Law

A Prolonged War Will Mean a Scarcity of Foreign Goods

Already in New York and Philadelphia the prices for many fabrics and articles have been marked up.

In two instances for next winter's goods we have been asked—in one instance $1.25 on what we usually pay one dollar for, and in another instance $1.50 for one dollar values. So long as the men are in the army, so long will all the foreign mills, workshops and studios be closed.

But why harp on foreign goods? Just because

A Proper Store is a Public Servant

and we must have everything the people want, and it is difficult to get transportation over the ocean for our purchases abroad.

Possibly four-fifths of our merchandise is American manufacture, but the one-fifth of our customers who want the fashions and fabrics of the old world are entitled to our best efforts.

Important and Timely War Notice

Though prices abroad and in New York Importers' hands have advanced

We Will Not Raise Prices

on fabrics or articles made abroad that we have on hand such as—

Handkerchiefs	**Neckwear**	**Curtains**
Linens	**Hosiery**	**Marabous**
Woolen goods	**Underwear**	**Furs**
Fine veilings	**Lingerie**	**Men's furnishings**
Embroideries	**Laces**	**French millinery**
Art needlework	**Notions and trimmings**	**China**
Toys	**Fine gloves**	**Perfumes**
	Silks	

Even though it comes to a time that we are at the last French handkerchief in the box or the last German tablecloth on the shelves we shall sell at the old prices.

This is the way we conduct our business from one end of the year to the other, giving the people every advantage possible. *August 7, 1914*

(SIGNED) John Wanamaker

The 4,000 Window Frames in the World's Largest Office Building Were Made of Armco Pure Iron Because

ARMCO IRON Resists Rust

Before placing this big order the architects made exhaustive tests to prove the rust-resisting quality of Armco — American Ingot Iron. They knew that a metal that would resist rust and corrosion would cut out big up-keep costs. Armco Iron, because of its unequaled purity and evenness, was found to be that metal.

Armco Iron has resisted the corrosive action of salt air and salt water, the fumes of sulphur and all conditions of weather. It has proved that it is far superior to ordinary sheet metal.

Armco Old Style Tin Roofing or Terne Plate, with its base of rust resisting Armco Iron coated with pure tin and lead, makes roofs that last like those of our grandfathers' time.

Railway Exchange Building, St. Louis. The largest mercantile and office building in the world. Mauren, Russell & Crowell, architects. 4,000 Armco Iron window frames furnished by J. E. Ruth, of St. Louis

AMERICAN ARMCO INGOT IRON

The trade mark **ARMCO** carries the assurance that iron bearing that mark is manufactured by The American Rolling Mill Co., with the skill, intelligence and fidelity associated with its products, and, hence, can be depended upon to possess in the highest degree the merit claimed for it. It has behind it the guarantee of that company concerning the purity of the iron and the accuracy and thoroughness with which each step in its manufacture has been conducted.

ARMCO is best for

Roofing
Terne Plate
Flashings
Cornices
Ventilators
Skylights
Window Frames
Metal Lath
Heating Pipes
Ventilator Ducts
Drain Pipes
Gutters
Eave Troughs
Water and Gas Tanks

Armco Iron lath resists rust. It is being used in some of the largest buildings of the country, such as the Woolworth Building in New York. Armco lath, either in the Herringbone pattern as made by the General Fireproofing Co., or the Imperial Spiral Lath and several other styles made in our factory, results in *lasting* plaster work.

This Handsomely Illustrated Book Sent FREE on Request

Because of its purity, Armco Iron shows practically no dissolution when the zinc is applied in the process of galvanizing; therefore the galvanized coating is purer and will last many times longer than that on steel or ordinary iron.

Architects, builders, contractors and all who are interested in reducing the cost of maintaining their buildings should read

"Defeating Rust," the Story of Armco Iron

It explains why iron that is pure will resist corrosion when steel and other iron rapidly rust away. It tells of the hundreds of widely different uses in which Armco Iron has been replacing other sheet metal. Send your address for a free copy of this interesting and valuable book.

THE AMERICAN ROLLING MILL CO., 509 MIDDLETOWN, OHIO

Licensed Manufacturers under Patents granted The International Metal Products Company

Branch Offices in Chicago, Pittsburgh, Detroit, New York, St. Louis
Cleveland and Cincinnati

The Handy Man's Lock

Can be applied in a few minutes by any man who can bore a hole and drive a few screws. Fits doors of any ordinary thickness, right or left hand, swinging in or out, and has all the security of the best door locks of any kind. Different sizes, finishes and functions to suit all requirements. Sold by the best hardware dealers.

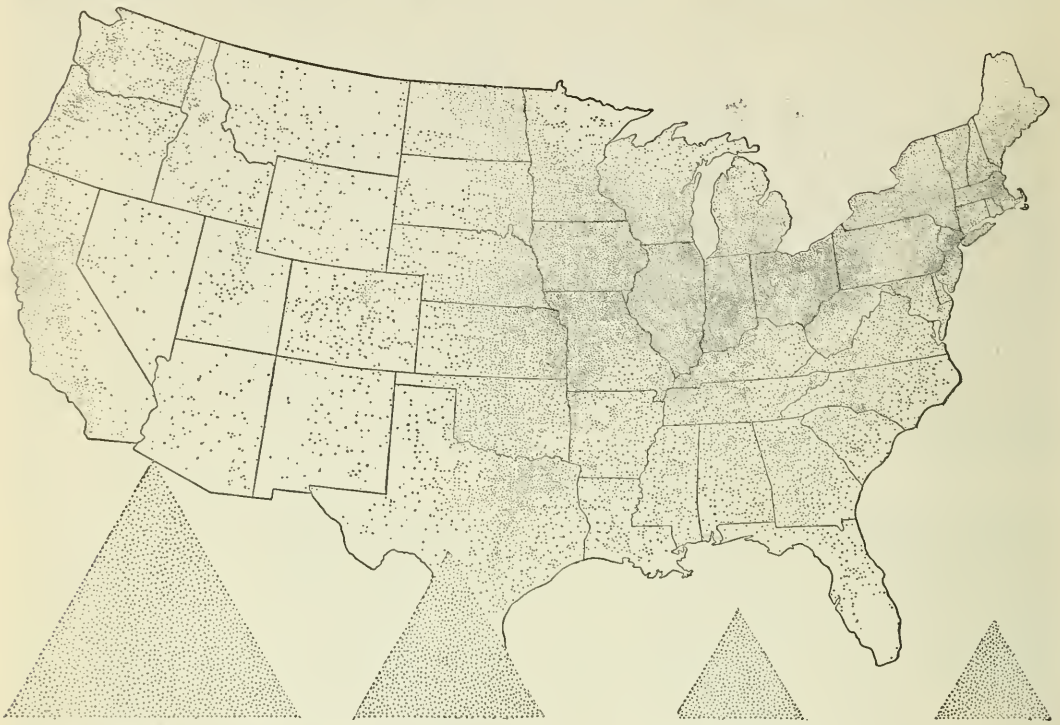
P. & F. CORBIN

The American Hardware Corporation Successor

NEW BRITAIN, CONNECTICUT

Chicago New York Philadelphia

What the Telephone Map Shows



56.8%
Exchanges Bell-connected, but not Bell-owned.

23.5%
Exchanges Bell-owned.

10.5%
Exchanges not Bell-owned or connected.

9.2%
Places served by two companies.

EVERY dot on the map marks a town where there is a telephone exchange, the same sized dot being used for a large city as for a small village. Some of these exchanges are owned by the Associated Bell companies and some by independent companies. Where joined together in one system they meet the needs of each community and, with their suburban lines, reach 70,000 places and over 8,000,000 subscribers.

The pyramids show that only a minority of the exchanges are Bell-owned, and that the greater majority of the exchanges are owned by independent companies and connected with the Bell System.

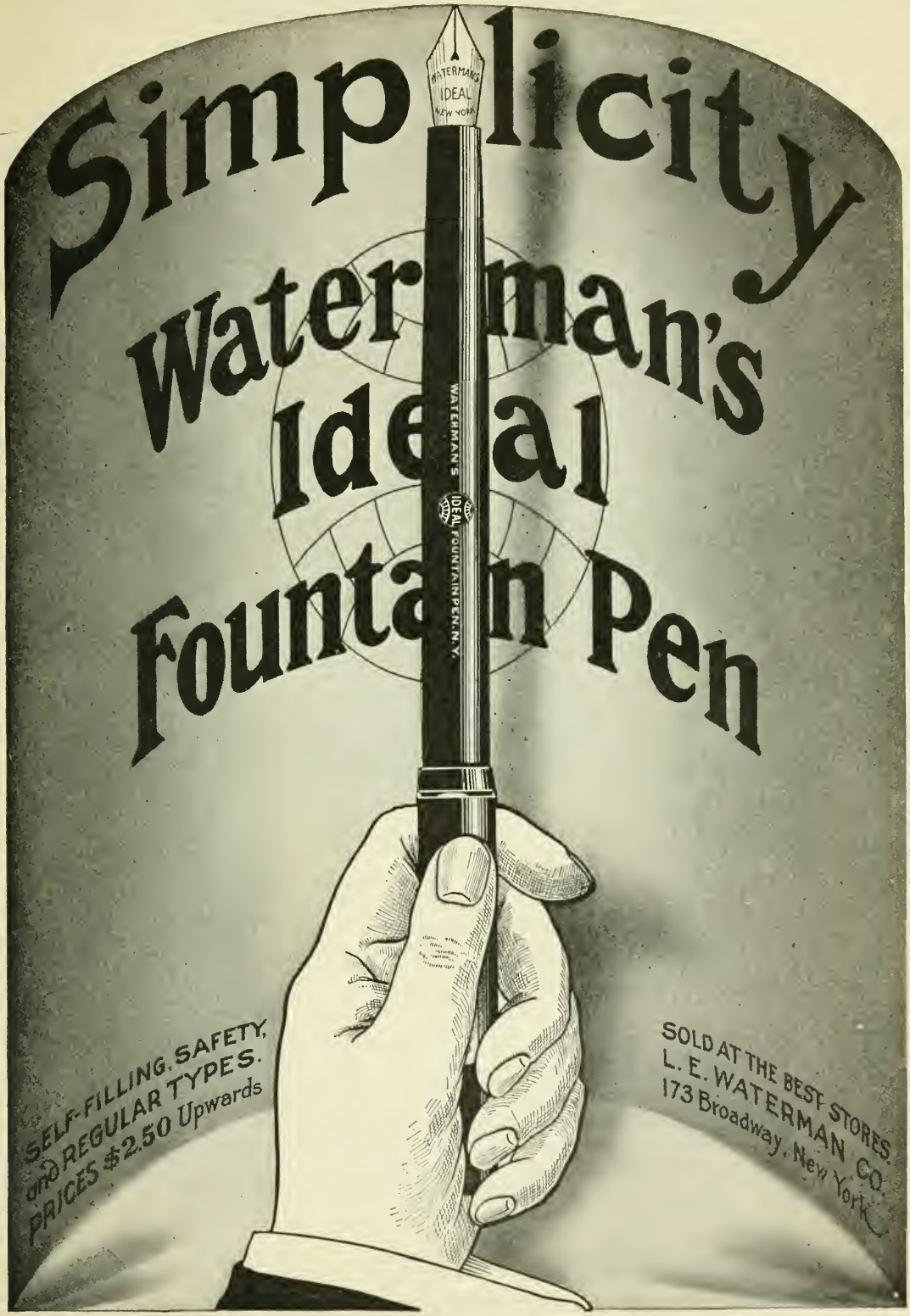
At comparatively few points are there two telephone companies, and there are comparatively few exchanges, chiefly rural, which do not have outside connections.

The recent agreement between the Attorney General of the United States and the Bell System will facilitate connections between all telephone subscribers regardless of who owns the exchanges.

Over 8,000 different telephone companies have already connected their exchanges to provide universal service for the whole country.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY.
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*


Simplicity
Waterman's
Ideal
Fountain Pen
WATERMAN'S IDEAL FOUNTAIN PEN, N.Y.
SELF-FILLING, SAFETY, AND REGULAR TYPES. PRICES $2.50 Upwards
SOLD AT THE BEST STORES.
L. E. WATERMAN CO.
173 Broadway, New York

"This is the Best Underwear we can buy"

COOPER'S
CLOSED CROTCH
PAT. OCT. 18, 1910
UNION SUITS
BENNINGTON, VT.

Every Dealer

well versed in men's wear holds Cooper-of-Bennington Spring-Needle Underwear in highest esteem. He knows Cooper-of-Bennington invented and makes the machines that knit this beautiful, springy fabric and that for nearly forty years he has been gaining an efficiency in manufacturing Spring-Needle Underwear that has never been equaled. Take home a suit of the

Original Spring-Needle Knit Underwear
Made by Cooper-of-Bennington

and get the expert opinion of your wife, or mother, or sister. She knows fabrics almost instinctively. She will know at first sight and feel that this underwear is unexcelled in fineness and luxury of softness and that it will wash beautifully. In the best men's stores and departments.

Wilson Bro's
Sole Distributors

New York	St. Louis	Chicago	Louisville	Paris
218-220 Fifth Ave.	1021 Washington Ave.	528-536 S. 5th Ave.	225-226 Tyler Bldg.	28 Rue de Trevisé

The Golden Age

The autumn of life is man's glorious season. In every department of human effort, where mind and experience count, age is master. But the thinning blood of age must have a food with the maximum of power to produce energy. Such a food is

ANHEUSER-BUSCH'S

Malt-Nutrine

easily digested and assimilated and providing the liquid life of rich Barley-Malt and Saazer Hops. Thousands of aged folks gladly tell of the benefit it has brought to them.

Your grocer and druggist have it

Malt-Nutrine, when mixed with milk or sparkling water, makes a most palatable and healthful drink. Malt-Nutrine declared by U.S. Revenue Department a pure malt product, not an alcoholic beverage. Contains 1½ per cent malt solids—1.00 per cent alcohol.

ANHEUSER-BUSCH · ST. LOUIS, U.S.A.

Booklet 45 (Beautifully Illustrated) sent free on request

Frantz Premier Electric Cleaner

Get Acquainted with the Pleasures of Your Breeze-Swept Porch——

Gain Time, Comfort and Contentment by Cleaning with a *Frantz Premier Electric Cleaner!* It means Freedom from the Heavy Task of Sweeping and Dusting!

9 ***A. M.*** and the day's work done! Not a bit of dirt, dust or lint to be found. All the floor coverings have been cleaned and purified. The home fairly glows with sunny freshness. And time gained to spend in the alluring green outdoors.

That's the program of seventy-five thousand American housewives on these hot summer days. They use a *Frantz Premier.*

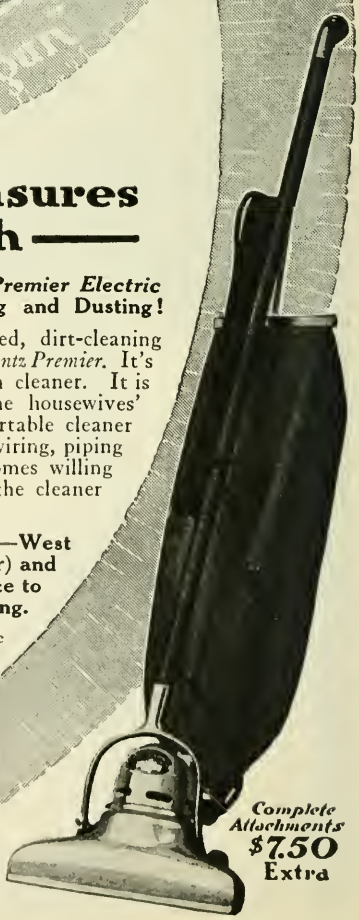
9 ***pounds*** of concentrated, dirt-cleaning energy — that's the *Frantz Premier.* It's more than a mere vacuum cleaner. It is the logical answer to the housewives' demand for an efficient portable cleaner at the right price. No wiring, piping or installing expense. It comes willing and ready to work. It's the cleaner *you* have desired so long.

The price of the *Frantz Premier* has been reduced from $30 to $25—West of the Rockies $27.50. Our multiplied output (100,000 this year) and efficient factory methods enable us to make this attractive price to you, and without any sacrifice of quality. Profit by this big saving.

'Phone or call on the FRANTZ PREMIER dealer to-day. If youdon't know who he is, drop us a postal. We will be delighted to give you the name of your nearest dealer and arrange for a demonstration on your own rugs. WRITE TO-DAY.

The Premier Vacuum Cleaner Company
Cleveland, U. S. A.

NOW
$25



Complete Attachments **$7.50 Extra**

Save time in your office work. The Readers' Service is acquainted with the latest devices

Nerves frazzled, temper on edge, stomach in rebellion, kidneys kicking over the traces, losing weight, no ambition—

Thousands of business men today can say, "Yes, that's me." It's the price we pay for keeping on the jump in the modern business race.

Our systems are full of poison; our digestive organs are overtaxed and cannot assimilate all that we crowd into our stomachs; result, indigestion and consequent defects of metabolism, followed by Bright's disease, renal calculi, stone in bladder, albuminuria, rheumatism and gout.

BUFFALO LITHIA SPRINGS WATER

is Nature's own remedy for these ills. Physicians have prescribed its use for over forty years with wonderful results. Among them **HUNTER McGUIRE, M.D., LL. D.,** *late President American Medical Association*, who said: "**BUFFALO LITHIA WATER**, as an alkaline diuretic, is invaluable. In Uric Acid Gravel, and, indeed, in diseases generally dependent upon a Uric Acid Diathesis, it is a remedy of extraordinary potency. I have prescribed it in cases of Rheumatic Gout, which had resisted the ordinary remedies, with wonderfully good results. I know from constant use of it personally and in practice that the results obtained from its use are far beyond those which would be warranted by the analysis given. I am of the opinion that it either contains some wonderful remedial agent as yet undiscovered by medical science, or its elements are so delicately combined in Nature's laboratory that they defy the utmost skill of the chemist to solve the secret of their power."

If you are not "right," try a course of Buffalo Lithia Springs Water. Buy a case and drink from 6 to 8 glasses a day; then see how improved you are.

Write for booklet, "Springs of Health."

BUFFALO LITHIA SPRINGS WATER COMPANY

Buffalo Lithia Springs, Virginia

Why Not Do Your Washing By Electricity?

THE easiest way, the quickest, the most thorough—yes, and the cheapest.

The cost of current is so small that it is not to be considered; the saving of the clothes and saving of time will quickly repay the cost of the machine.

Electricity is doing the hard part of the household work in all modern homes.

The vacuum cleaner has banished the broom, and the electric washer should take the place of the washboard in your laundry. In any home where there is electric light, a

Western Electric
Washer and Wringer

will pay for itself, no matter who does the washing—the housewife, the servant or the laundress. The revolving cylinder sends the hot, cleansing suds through every bit of fabric without injury to even delicate laces. The wringer is reversible and wrings into the rinse tub and back again.

Learn All About It Without Obligation

This machine is perfection in construction and simplicity. We cannot tell you all about it in this advertisement, but we will send illustrated literature on request, and you can arrange to have a washer sent to your home for a two weeks' trial. Take advantage of this opportunity to test this wonderful machine. Write our nearest house for booklet No. 83 S.

WESTERN ELECTRIC COMPANY

Manufacturers of the 8,000,000 "Bell" Telephones

New York	Atlanta	Chicago	St. Louis	Kansas City	Denver	San Francisco
Buffalo	Richmond	Milwaukee	Indianapolis	Oklahoma City	Omaha	Oakland
Philadelphia	Savannah	Pittsburgh	Minneapolis	Dallas	Salt Lake City	Seattle
Boston	Cincinnati	Cleveland	St. Paul	Houston	Los Angeles	Portland
New Orleans						Detroit

EQUIPMENT FOR EVERY ELECTRICAL NEED

Why the Shults Bread Co., of New York, Purchased 2 Lippard-Stewart Trucks in February, 2 More in May and 2 More in June

This fleet averages 50 miles a day delivering Bread in the suburbs

Their Dependability, Durability, Economy Won

After study of our specifications the first two trucks were purchased. Those two made the repeat business. You cannot get away from actual tests and records.

We have furnished chasses with various types of bodies for over seventy lines of business.

We have furnished from 1 to 9 cars for over

30 Department Stores	5 Hardware Stores
10 Wholesalers	5 Liquor Dealers
18 Grocers	5 Bottlers
10 Butchers	5 Furniture Dealers
5 Florists	15 Manufacturers
11 Bakers	10 Funeral Directors
10 Confectioners	5 Delivery Service Cos.
5 Druggists	5 Contractors
12 Dairies	15 Public Service Cos.
6 Laundries	5 Clothiers
U. S. Army	U. S. Parcel Post

Radiator at Dash Is Our Dealer Sign

Lippard-Stewart MOTOR TRUCKS

READ THESE REASONS FOR OUR SPECIFICATIONS

Continental Motor

35 H. P. (2 and 1½ Ton). 30 H. P. (1 Ton, ¾ Ton). Selected for great durability and "get there" power. The long stroke motor for trucks.

Automatic Speed Governor

An absolute protection against foolish waste of power and ignorant driving.

Eisemann Magneto

Gives very hot spark on low or starting speeds as well as on high speeds.

Cone Clutch

For simplicity and great dependability.

Brown-Lipe Transmission

Timken Axles and Bearings both of recognized QUALITY and standard excellence.

Worm Drive (David Brown)

(Standard on 1 Ton, 1½ Ton, 2 Ton.) On ¾ Ton extra above bevel drive with minimum loss of power. More dependable and durable than chain or bevel-spur gears. The kind that gained fame on the London omnibuses after other drives had failed.

Wheel Bases that suit the load.

Big Size Tire Equipment.

Left Steering—Center Control.

WRITE US ABOUT THE SIZE TRUCK YOU ARE INTERESTED IN

¾ Ton that gives rapid service and long-run satisfaction in light delivery work. **$1650.**

1 Ton with 8 to 9 ft loading space, power that never fails, durability unsurpassed. **$2000.**

1½ Ton that fills the gap in light and heavy duty trucks with great economy. **$2300**

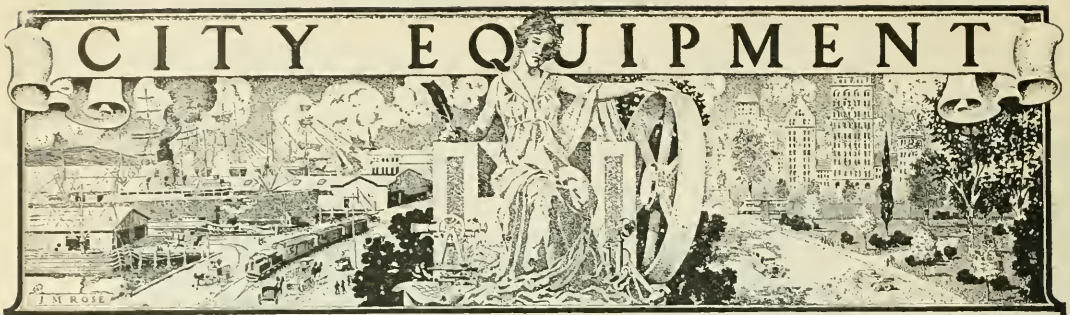
2 Ton A big seller in wholesale and contracting trades. The big truck that produces big results. **$2600.**

LIPPARD-STEWART MOTOR CAR CO., 1727 Elmwood Ave., Buffalo, N. Y.

Distributors and Service Stations in Leading Sections of the Country

Worm Drive Trucks purchased by the U. S. Army for duty on the Mexican Border

Save time in your office work. The Readers' Service is acquainted with the latest devices



·CONDUCTED·BY·F·VAN·Z·LANE·CONSULTING·ENGINEER·

Information concerning city equipment and materials will be given free of charge. Subjects covered include Road Building and Paving, Street Lighting, Water Supply, etc., etc. Address CITY EQUIPMENT DEPT., WORLD'S WORK, 11 W. 32nd St., New York

WHILE attending a house party not very long ago with a friend from a city of 400,000 people not very far from New York, this friend asked one of the ladies present if she had ever been in his city. The lady replied that she had been through it while motoring and declared that it must be a terrible place in which to live. When asked why, the lady said because the paving on the main street, which was also part of the direct route between other very large and populous cities and communities, was in such very poor condition.

So here was a city being judged by the condition of the paving on its main street and by one who it would seem would not naturally think very much about these things. This quite obviously establishes the fact that cities are very frequently judged by their street paving and that the opposite sex are interested in city equipment. And the more that this idea is turned over the more reasonable it seems to be.

There can be no question but that the women of a city should be equally interested in city equipment with the men. They are just as dependent on it and if they would lend their influence and direction in putting the city equipment in order and in keeping it there, the outcome would never for a moment be in doubt.

There can be no question also that it is a dead certainty that the paving condition of the streets of a city determine to most people just what kind of a city it is. The surface condition of a city's streets are always and at all times open to view not only to the residents, but also to visitors and to even those just passing through the city. A city may have a first-class school system, fire department, park department, hospital, etc., but it takes something unusual to impress these facts on the minds of the community and mere passers-by do not realize this at all.

Every one uses the streets and are dependent on them. They may unnecessarily entail a great burden in their upkeep and in their use, or they may be a delight to use at a cost comparable with the service rendered.

When it is considered that the streets of a city constitute about 30 per cent. of its area and that everyone is so dependent on them, that more consideration would be given to constructing them, so as to be more available for transportation purposes, so that upkeep would be reduced to the lowest possible minimum and so that they would present a better appearance.

The character and amount of traffic, grades, etc., should all be considered in determining the type of pavement to be put down as well as the general character of the community and buildings adjacent thereto. When the type of pavement has been decided upon great care should be exercised in its construction. It has been my experience that generally speaking the pavements of the streets of the cities of this country, when they do fail, fail mostly because not enough attention is paid to a suitable selection of the type of pavement and to the manner in which it is put down. I have been an inspector on the construction of city pavements together with other men who in no way were qualified to pass either on materials or workmanship. These men gained their positions either because of political reward, or because of book study and coaching they had succeeded in passing an examination. This is the rule rather than the exception and, it has always seemed to me that if those people — the tax-payers and rent-payers — who pay for these payments really understood this, that they would demand and receive more intelligent supervision in the construction of their pavements and more care would be shown in selecting the most suitable material.

I do not believe that city engineers are as yet thoroughly impressed with the necessity of considering street construction from a traffic standpoint, and I am convinced that when they do realize the necessity of such consideration we will have pavements that will last longer, be minor-repaired less frequently and look better. And, consequently, a great saving will not only be effected in their construction, maintenance and cleaning, but that a great saving in time and so, of course, money, will accrue to all of those using the streets because a better movement of traffic will result and delays will be eliminated.

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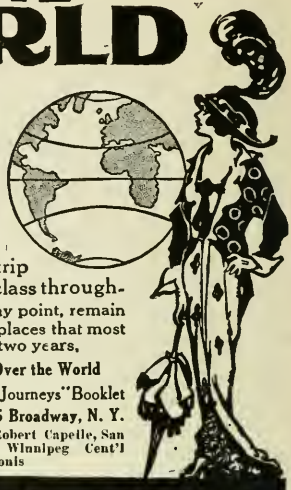

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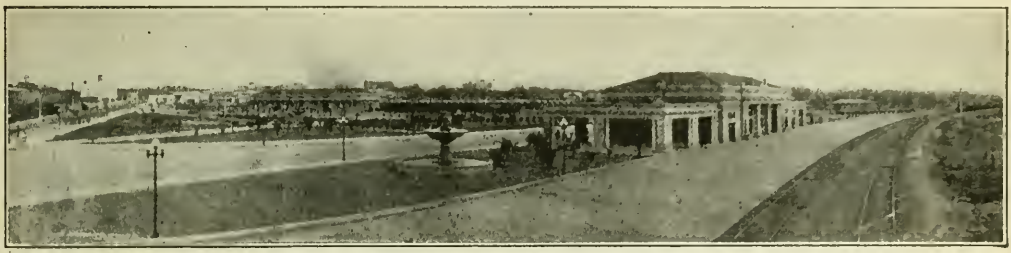

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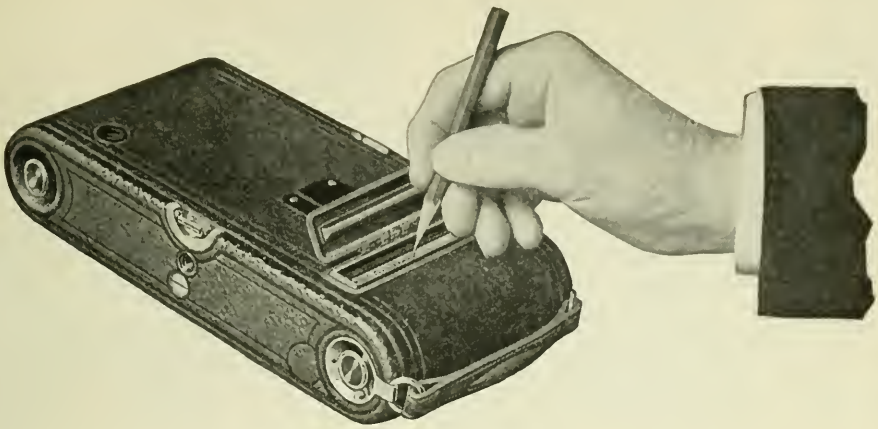

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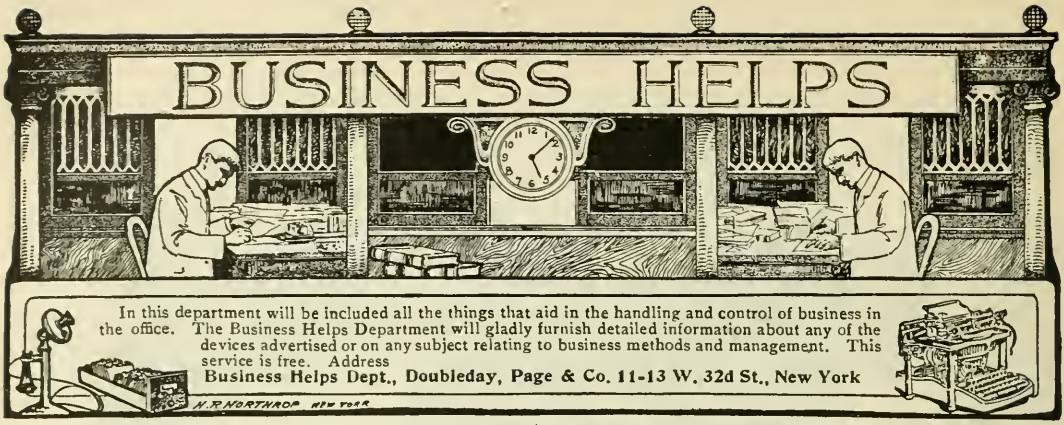

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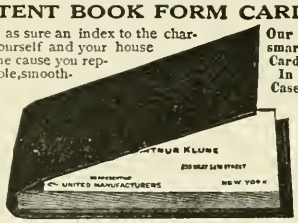

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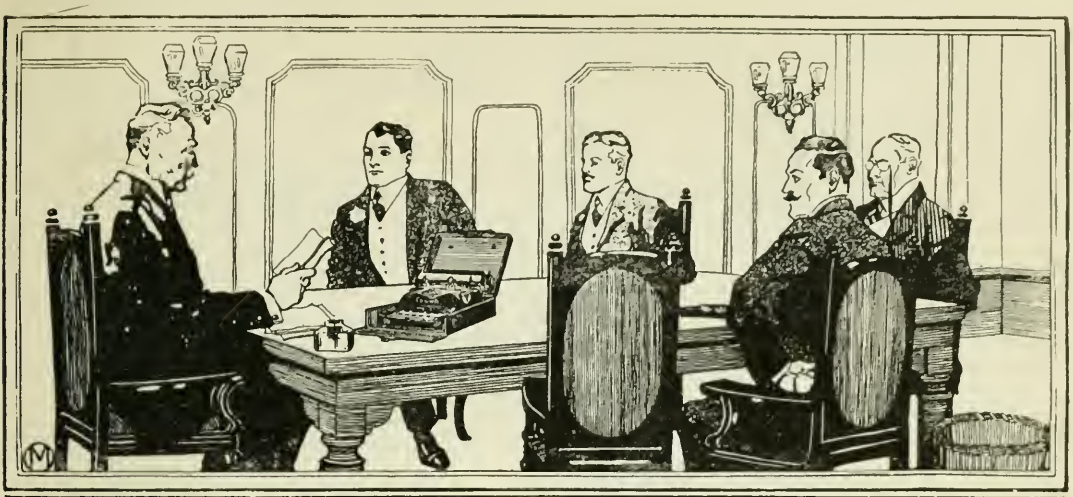

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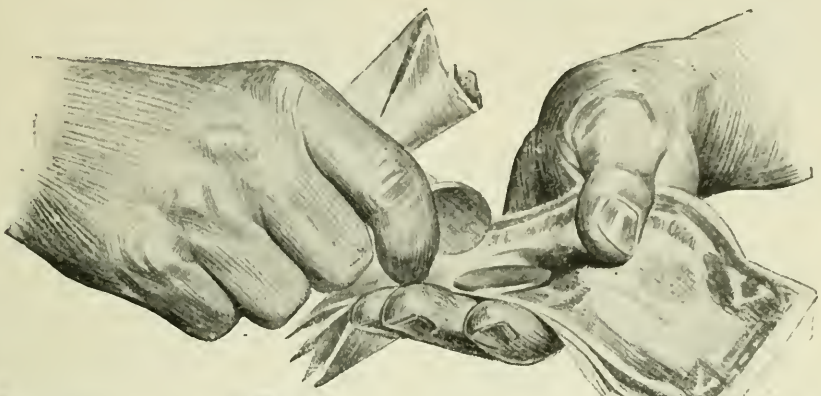

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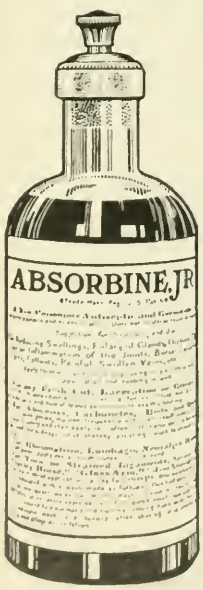

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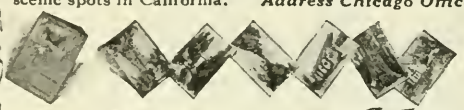

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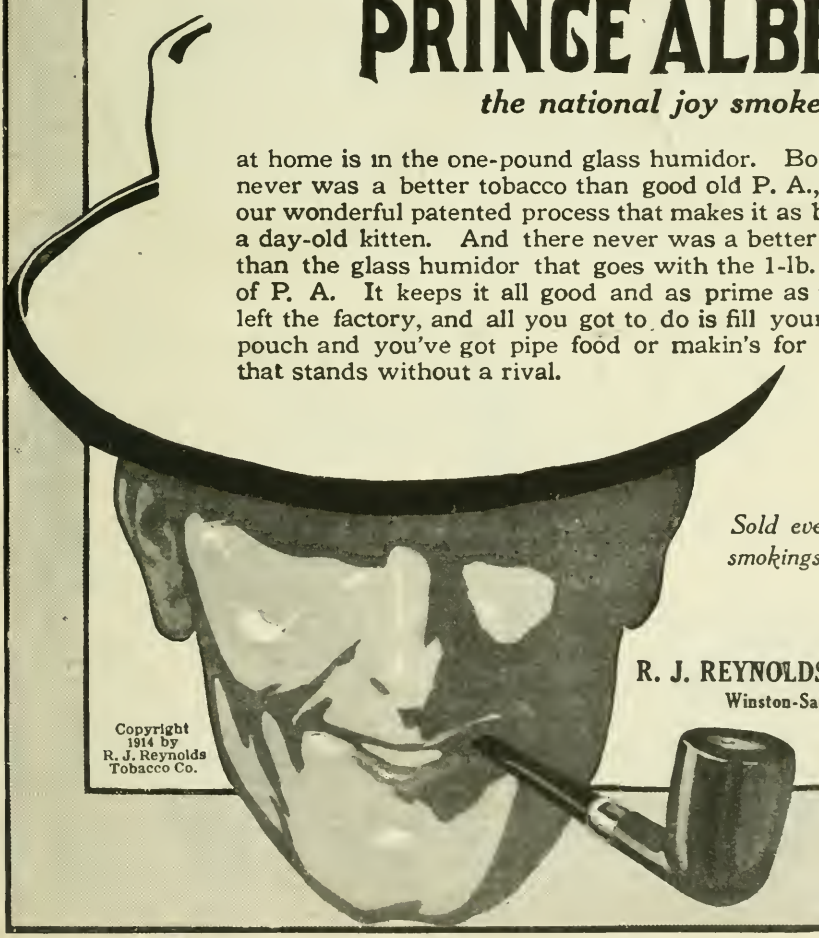

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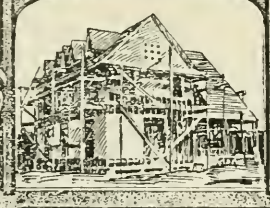

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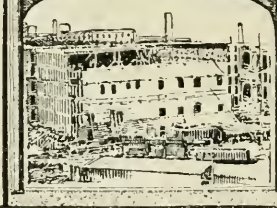

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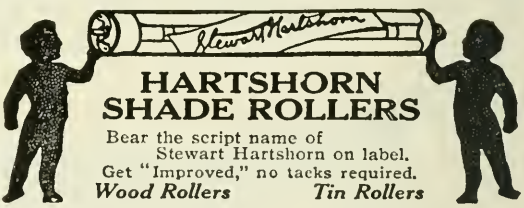

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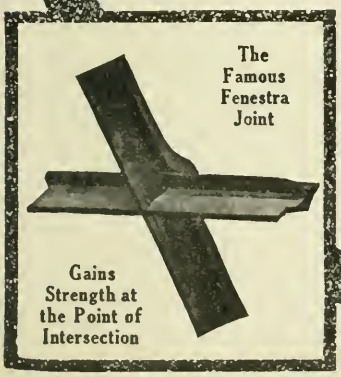

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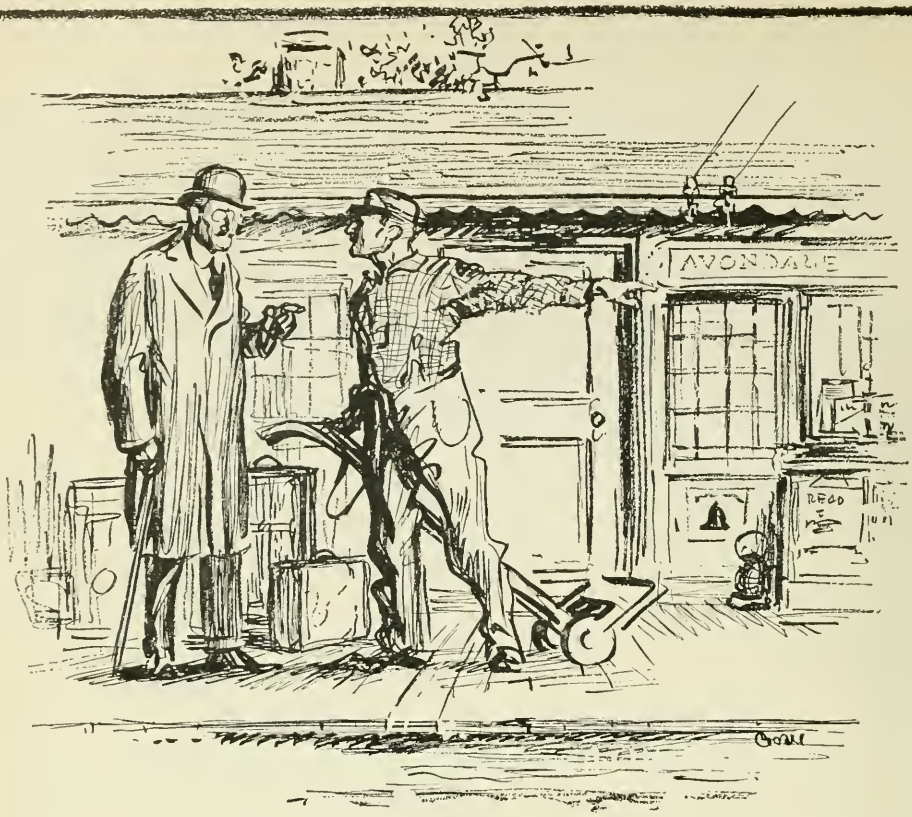

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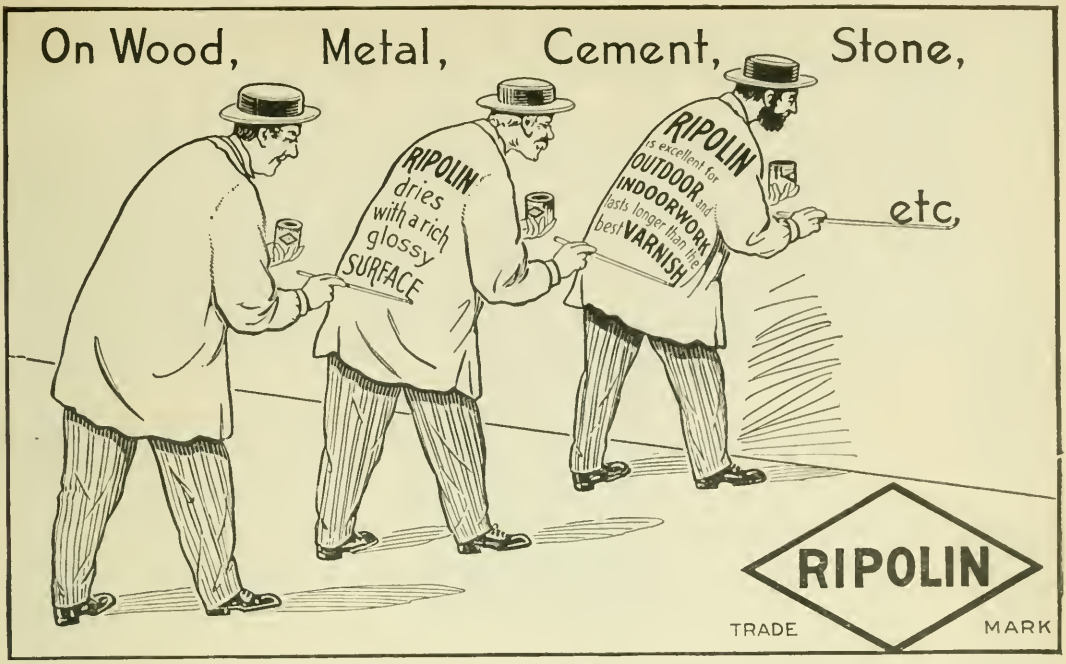

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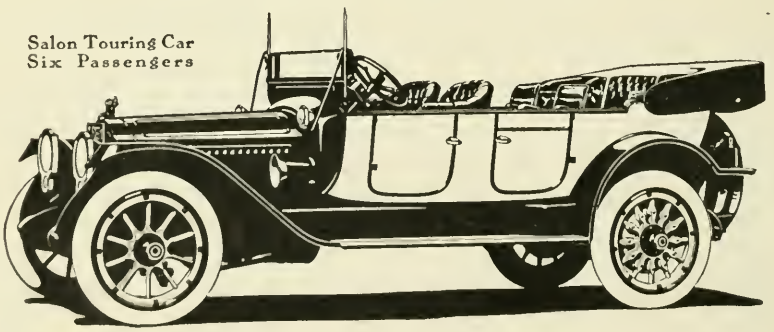
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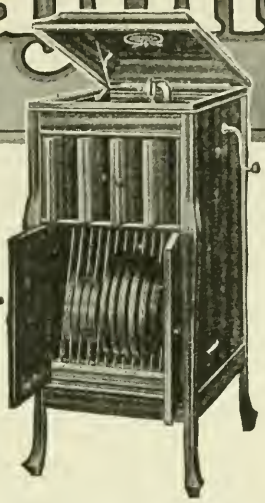

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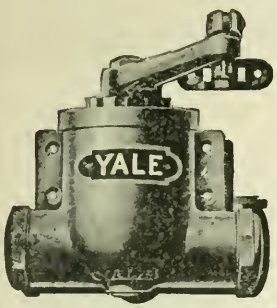

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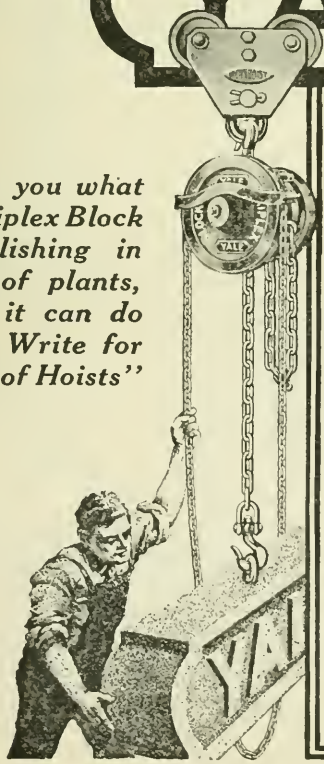

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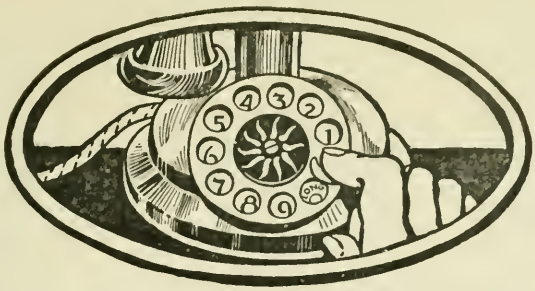

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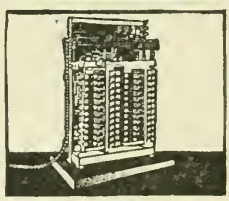

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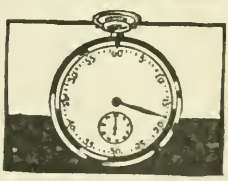

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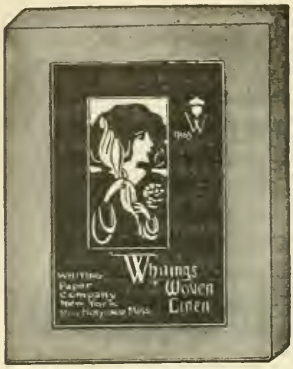

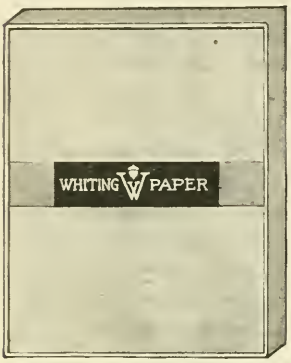

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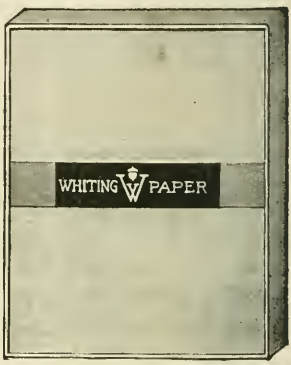

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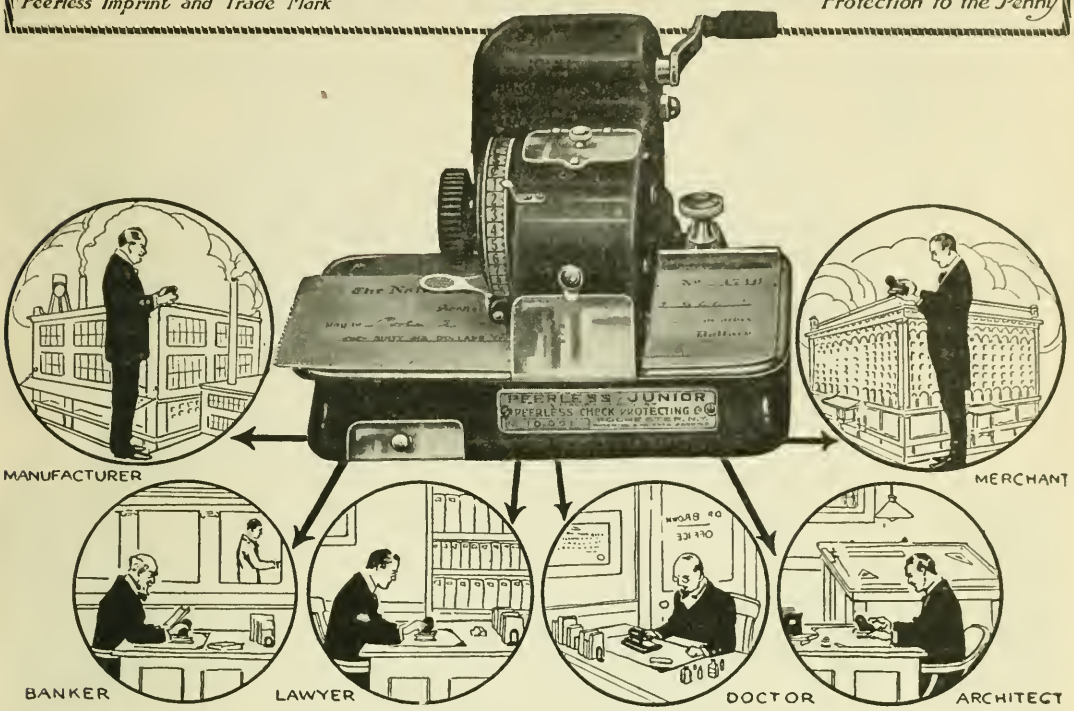

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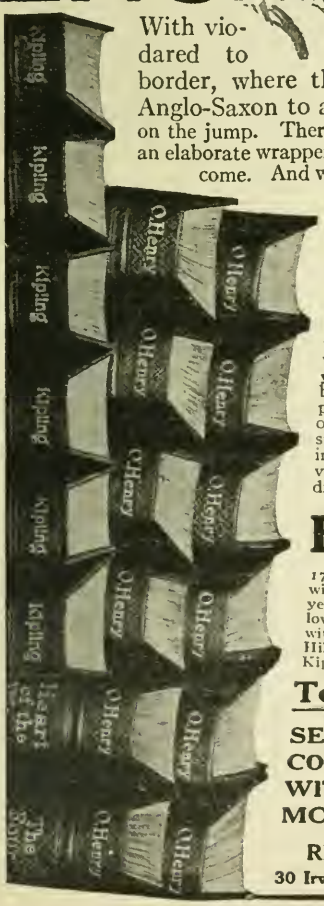

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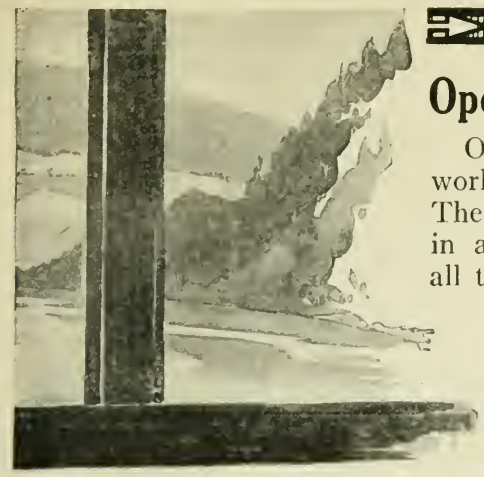

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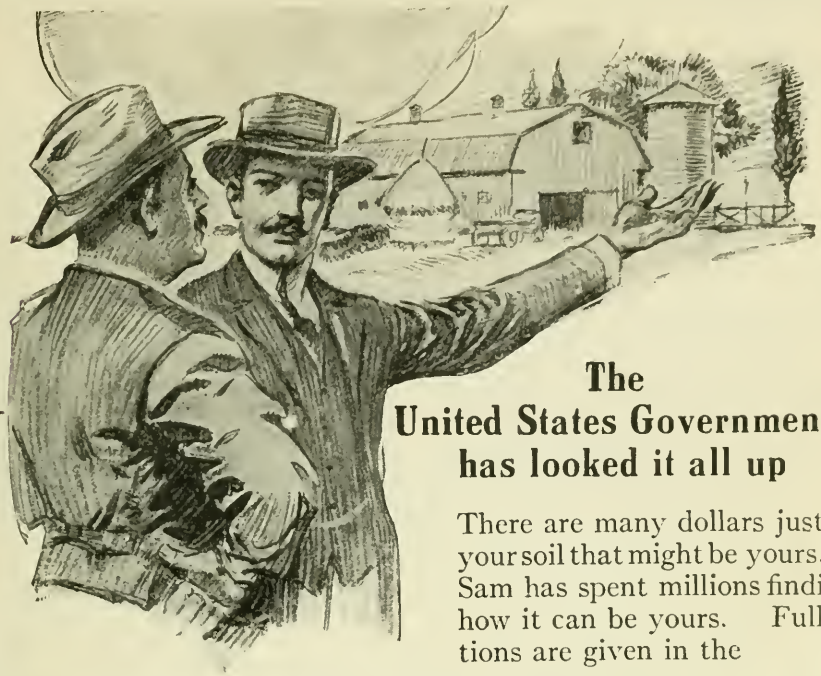

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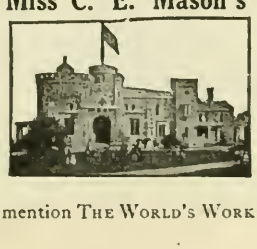

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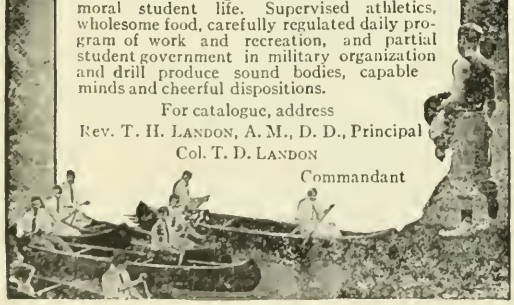

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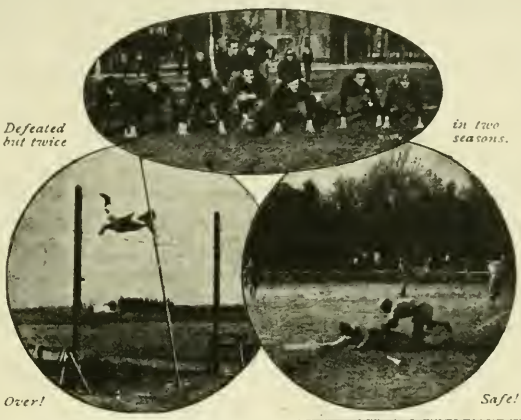

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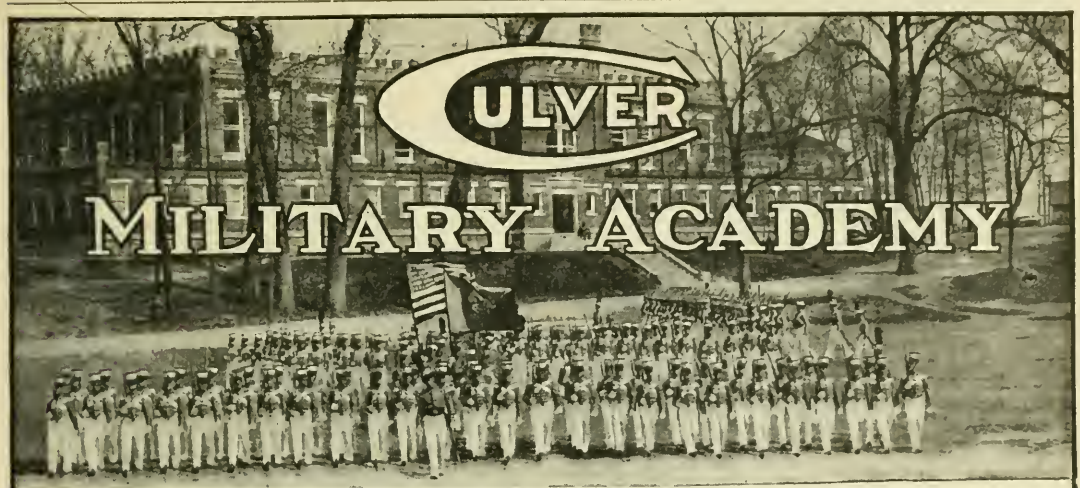

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If you were to build a school especially for your boy the chances are that you would like to have him get his education out in the open country — away from the dangers of the city — where he would come in contact with the actual operations of a large and modern farm, with workshops, live stock, lakes, woods, and all the equipment necessary for thorough study and healthful sport — and where, under the best of instructors and with the association of clean-minded and clear-cut boys from the best of American homes, he would be fitted mentally and physically for early entrance into American or European universities. These are some of the advantages that Interlaken offers. Is it not just the school for your boy? Write Edward A. Rumely, principal, Rolling Prairie, Indiana, today.

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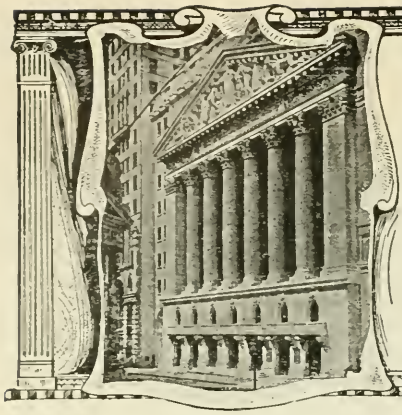

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This is a department in which we publish announcements of bankers. We investigate those who wish to use our pages, and the advertisements are supervised before acceptance. We make every effort to accept only the offerings of safe securities and the announcements of responsible and reliable banking firms.

The Readers' Service Bureau of the WORLD'S WORK offers its service without charge to all readers who desire information in regard to investments or on any financial subject. Inquiries about insurance will also be answered.

Address Readers' Service, The World's Work, 11 W. 32d St., New York City

INSURANCE

496.— DOCTOR. *Q.* The general trend of opinion in the various financial articles in the WORLD'S WORK for the last few months as well as published answers to inquiries leads me to ask advice in regard to my own investment. I have at present a fairly large amount of the preferred stock of the U. S. Steel Corporation. I am not dependent upon the income from this investment; nevertheless, am very anxious for its safety, especially as my work gives me little time to keep abreast of the financial situation, the stock market, etc. My brother also owns Steel preferred, and is almost entirely dependent on its income. We both have considered selling most of it and investing in such a way that each would have one quarter Steel preferred; one quarter or one half farm mortgages, and the rest in municipal and railroad bonds. We would hope to secure an average yield on an investment of this kind of perhaps 5½%. Will you kindly advise us whether the above plan is good. We are scarcely ready to sell the Steel preferred at present, as we believe we should get for it a price nearer 115. Do you think it risky to wait for such a price.

A. We do not hesitate to express ourselves as being most heartily in sympathy with your plan for the diversification of your investment holdings. We feel, however, that there is no necessity for you to act in the matter in any haste. The investment position of Steel preferred seems to us to be at least a reasonably satisfactory one, and we believe that relatively little risk would be involved in your holding for the price you have in mind. But we could not, of course, undertake to predict within what time the stock is likely to reach that market valuation. In view of the fact that the change which you are contemplating is in the nature of a future, we think it would be advisable for us to defer making any definite suggestions in regard to the railroad and municipal bonds as substitutes. The market for the former class of securities, at least as far as the higher grade bonds are concerned, is showing some pretty definite signs of improvement, so that there is a possibility that if we were to suggest specific issues now, we might feel that we should like to revise our suggestion in the light of market conditions prevailing at the time you get ready to buy. As a preparatory measure in connection with your proposed investment in municipals, we think it would be a good idea for you to get in direct personal touch now with a few of the responsible investment banking houses which specialize in that type of security. That is the best way to obtain a comprehensive selection of offerings. A like course might be taken also, in preparation for an intelligent selection of farm mortgages.

497. JEWELLER. *Q.* Please give me information or let me know where I can obtain it regarding the present value of the following bonds:

West Shore 1st Mortgage 4's.
Union Pacific 1st Mortgage & Land Grant 4's.
Atchison, Topeka & Santa Fe Gen. Mortgage 4's
Wisconsin Central 1st & Gen. Mortgage 4's.
Chicago, Rock Island & Pacific 1st & Ref. 4's.

Am I correct in assuming that these bonds are as good as any railroad bonds in the United States?

A. Recent market quotations for these bonds were 93¾ for the West Shore 4's; 97¼ for the Union Pacific 4's; 95⅝ for the Atchison 4's; 88½ for the Wisconsin Central 4's; and 74 for the Rock Island 4's. Comparison of these prices with those which prevailed two or three years ago, will, of course, show that the bonds have all declined — some of them materially. In most instances, however, these declines have been due to technical market conditions, rather than to the development of any weakness in the underlying position of the bonds themselves. The greatest decline is shown in the price of the Chicago, Rock Island & Pacific Ref. 4's which have been adversely affected by the development of a serious condition of affairs in the Rock Island System as a whole. As you probably know, efforts are now being made to reorganize the System. One plan proposed for this reorganization, by which it was hoped to accomplish the desired purpose without a receivership, has been rejected and it is possible that it may yet be found necessary to appoint receivers for the Railway Company. But even in that event, we are inclined to think that few, if any, of the Railway Company's bonds will have to be disturbed in readjusting the company's finances. It now seems likely that, if any of the burdens of readjustment have to be carried by bondholders, they will fall entirely upon the holders of the Debenture 5's, which immediately follow the Refunding 4's. Two of the bonds in your list you are perfectly justified in regarding as being representative of the very best of that type of investment. We refer to the Atchison Gen. Mortgage 4's, and the Union Pacific 1st Mortgage & Land Grant 4's. The others do not measure up to these in intrinsic merit.

498.— EMPIRE. *Q.* I wish to invest a small amount where it will earn more than the 3½ to 4 per cent. paid by the savings banks, and at the same time have a security that could be readily converted into cash. Is there a state tax on stocks as well as on bonds?

A. One very good way would be to divide the money between good railroad bonds yielding from 4½ to 5 per cent, and the better grade of public utility bonds yielding from 5 to 5½ per cent. In New York State all stocks are exempt from the personal property tax.

Give Some Attention to Investments

Even though you may be busily engaged in your own occupation, we suggest that you devote a part of your time to the study of investments, with the idea of making satisfactory selections when dealings are resumed in the security markets. We shall be pleased to send you in this connection any of the following investment literature:

Circular 738 Describing Conservative Investment Bonds

Circular 739 Describing Over 100 Issues of Listed Stocks

Circular 740 Describing all of the Principal Issues of Convertible Bonds now upon the market

Circular 741 Describing Canadian Municipal and Provincial Bonds

Circular 742 Describing Public Utility Investments — 16 Issues

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This is the character of bond which is appreciated by *conservative* investors—he who invests for security, coupled with a good income—for these attractive bonds can be obtained at 100 and interest, yielding full 6%. And they are payable without deduction for the normal federal income tax.

Read the interesting descriptive circular—we shall be glad to send promptly after receiving your request

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The Bankers Trust Company, Houston, sells First Mortgage 7% Real Estate Gold Bonds, issued in denominations of $500.00; interest rate 7%; secured by Texas farm lands and improved city property worth double the amount of the loan.

This Company does not act as broker, but all securities are owned by the Company before they are offered for sale.

All principal and interest is collected and remitted without charge to the investor, when due.

Consider this offering and what it means to you to increase your interest rate. Descriptive booklet, giving details, will be furnished upon request.

BANKERS TRUST COMPANY
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Capital $2,000,000. **Surplus $600,000.**

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Safety — In Times of War

In times like these prudent investors desiring wholly safe securities naturally turn to mortgages on the land.

First mortgages on well located, improved city real estate in the United States, or their more modern equivalent, first mortgage real estate bonds, are investments which are proof against all the disquieting influences which a great conflict causes.

There is no better, sounder and more solid basis for an investment than improved real estate. The land is the foundation and the source of all value. It will always be there, and always be valuable. A roof over one's head is the first necessity of life. First mortgages and first mortgage bonds secured by such property are by their very nature non-fluctuating securities.

During the 32 years since this House was founded, the securities we have sold have successfully met the test of such periods as that through which we are now passing. This is attested by the fact that no investor has ever suffered loss of either principal or interest on any security purchased of us.

The bonds are in denominations of $100, $500 and $1,000, and the mortgages in amounts to $3,000 upward. Write for information, indicating whether you are chiefly interested in mortgages or bonds, and

Ask for Circular No. 535-J.

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STRAUS BUILDING CHICAGO — 32 YEARS WITHOUT A DOLLAR LOSS — ONE WALL STREET NEW YORK

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It is characteristic of the human race that a certain attitude and sentiment precede all activity

¶ The general improvement in sentiment and demand in trade — the present attitude of bankers, merchants and manufacturers and also the administration at Washington—all are evidences of the country-wide preparation for real and substantial activity.

¶ Within a few months this will begin to be reflected in the stock markets of the country.

¶ Now is the time to buy. High-grade railroad and industrial securities can *now* be obtained at a much more advantageous figure than six months hence.

¶ Large or small investments will receive equally prompt, personal attention.

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Municipal Bonds

YIELDING FROM

5% TO 6%

Investment in Municipal Bonds offers the utmost safety and you are free from the annoyance and expense of the Government Income Tax. These bonds are secured by the taxing power, which is prior in lien to all other debts encumbering property of all kinds.

These bonds are the same as the United States Treasury accepts as security for Postal Savings Deposits.

Make your savings just as secure as the Government makes its deposits, and instead of receiving 2%, receive three times as much as the Government pays you. Issued in denominations of $500 and $1000. Write or call for List No. C.

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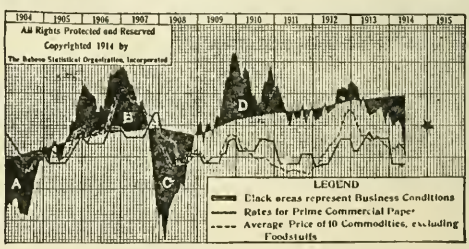

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Are bonds issued by cities of **California** to cover the cost of paving, grading, curbing, sewering or otherwise improving the city streets. These bonds, being issued under the General Street Laws of **California,** which authorizes the issuance of bonds by incorporated cities of California for the improvement of streets, bear interest at the rate of seven per cent per annum, payable semi-annually.

Terms of Ten Years

Street Improvement Bonds are a ten-year installment coupon bond. Interest is payable semi-annually, and one-tenth of the principal is payable each year. Both interest and principal payable at the office of the City Treasurer of the City where issued.

Denomination

These bonds are issued in various denominations from $25 upward, according to the cost of improvements and the size of the property covered by the bond. Bonds for the ordinary improvement covering a fifty-foot lot run from $50 to $200, governed by the cost of the improvement.

Coupons

Each bond carries coupons representing semi-annual interest due in January and July, and annual installments of one-tenth of the principal, which is due each January.

Security

Each bond issued for street improvements is a first lien upon a specific piece of property for its proportionate share of the improvement for which the bond is issued. These assessments being comparatively small, in every instance, the property against which the bonds are issued is worth many times the amount of the bond.

Nearly all street improvements in progress are either within the business area or the close-in residence districts. These liens will average approximately from 10% to 20% of the value of the property.

Record of Bonds

A street bond is a recorded lien against a particular piece of property which it is issued to cover, and cannot be avoided by the sale, mortgaging, or otherwise transferring of the property.

First Liens Against Property

Street bonds are the first lien against the property which they cover, consequently take precedence over all other liens **except taxes,** and for that reason owners of mortgages, judgments, or mechanics' liens against property, are as much interested in the payment of street improvement bonds as the owners, and are continually watching to see that payments are enforced.

Non-Taxable

Under the laws of California, street improvement bonds are exempt from taxation, including the income tax, which insures the investor a **net investment.** All properties securing street bonds are carefully inspected by this Company.

City Enforces Payment

In presenting coupons to the City Treasurer for payment should there be a default in payment of interest, or any installment of principal, the bond can be delivered to the City Treasurer, the property covered by bond is sold by that official, the bond as well as the expense of sale are paid from the proceeds. The amounts are such a small proportion of the value of the property, and the terms of payment so equitable, that a foreclosure seldom occurs. These bonds are better than a mortgage, as they are so small a proportion of the value of the property by which they are secured.

The denominations indicated, as will be readily seen, lend themselves to the investment of any sum from $25 up. The bonds are often redeemed by property owners in order to clear their title in effecting a sale or mortgage, consequently are a constant source of profit to the bond purchaser, which makes their investment better than a 7% investment. The bond holder is obliged to release the bond, and when he does receives as a bonus the amount of the next interest coupon, and two years' interest at 7% on the unpaid balance of the bond.

A1 Investments

Street bonds are regarded by investors and financiers as one of the most profitable and safe investments in the market. They can much more easily be converted into cash, in case of necessity, than can mortgages, and are always good collateral upon which to borrow money.

Owing to the various denominations in which the bonds are issued, it makes it possible to realize a small amount of money without disturbing the whole investment.

Legal Status of Bonds

The proceedings leading up to, and including, the issuance of all bonds offered to investors by this Company are passed upon by Street Bond attorneys, considered among the best and most competent in California.

We refer by permission to First National Bank of Los Angeles, Marco H. Hellman, Vice President Merchants National Bank of Los Angeles and President Hellman Commercial Trust and Savings Bank, of Los Angeles, Security Trust and Savings Bank of Los Angeles, Los Angeles Trust and Savings Bank of Los Angeles.

We very highly recommend street improvement bonds to anyone looking for a safe and profitable investment, and will gladly furnish lists and full information to anyone applying.

The Empire Securities Company

Hibernian Bldg., Fourth and Spring Streets

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Income Tax Exempt!

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SAFETY. These Bonds are purchased in large quantities by the local Savings, State, National Banks and Trust Companies, as they are legal funds for trust estates in California. We offer them at par and accrued interest, subject previous sale.

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References: Dun's or Bradstreet's or this magazine.

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First mortgage bonds where each original issue has been substantially reduced by serial payments, margin of security correspondingly increased and borrower's ability to meet obligations under all conditions definitely proved. An unusually wide variety as regards maturity, and location and character of security, enabling you to select an investment suitable to your own requirements.

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First mortgages secured by producing Alberta farms are the safest kind of investment, with an assured high income. Alberta is a Land of Golden Harvests — big crops make it easy for borrowers to pay 6%.

Every mortgage offered by us has been personally investigated — as to the character of applicant and actual value of his land. Security is 3 and 4 times the amount of loan.

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Don't you think the 6% and safety of these Alberta farm mortgages make it worth while to seek more specific information? Our free booklet, "Financing the Alberta Farmer," will give it to you.

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True Economy

takes account of the future as well as the present. It not only puts a stop to unnecessary expenditures but it provides safe keeping and profitable use of the money saved.

You can make safe and profitable use of your funds by purchasing the 6% Bonds of the American Real Estate Company. These Bonds are based on real estate, the safest and most stable investment medium.

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The Accumulative Bonds are issued in denominations of $1000 and upward, and are purchasable by instalment payments running for 10, 15 or 20 years. These instalment payments bear interest at the rate of 6% compounded annually, and at maturity principal and interest are paid in one sum—the face value of the Bond.

Our printed matter clearly describing both forms of Bonds will be sent at your request.

American Real Estate Company

Founded 1888 **Capital and Surplus $3,247,789.13**

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for you from the fertile lands of Louisiana.
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SAFETY FIRST is the plan on which we operate and you are guaranteed that your interest and principal will be paid promptly when due.
Our Booklet "DOWN SOUTH" tells you all about investments in $100 and $500 pieces, for cash or partial payments.

Write for Booklet 1131-A

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CAPITAL PAID IN $600,000.
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We offer our mortgages to you as a sound investment, and only after careful examination of each property.

EIGHT LIFE INSURANCE COMPANIES attest the soundness of these mortgages by purchasing in increasing volume.

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Collections are made without cost to investors.

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6%

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yield 6% net and are secured by First Mortgages based on two to three times the actual value of the farms.

Over forty years' experience in the valuation of improved farms and safeguarding our customers.

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Established 1780
The Southern Mortgage Co.
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Accepted by the U. S. Government as security for

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Instead of the 2% the Postal Banks pay, these Bonds will yield from **4% to 5¼%**

Write for Booklet B—"Bonds of Our Country"—FREE

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INVESTMENT VS. SPECULATION

To invest in securities is to discount the future.

The future of a highly productive, well located farm, is much more certain than that of any business.

We offer you mortgages covering loans in the most successful farming districts, based on 40% (or less) of the producing value of the land.
These mortgages will net you 6%.

Ask for Booklet "E"

Markham & May Company

Milwaukee, Wisconsin
Branches
Portland, Ore. **Seattle. Wash.** **Superior, Wis.**

First Mortgages
Security—Stability—Income

It is pretty safe for the individual investor to follow the lead of the Savings Banks. As a rule, they invest about half their funds in real estate mortgages and half in corporation bonds.

Ward-Harrison first mortgages have two important qualifications: they are high grade mortgages and they yield the investor 5½%. They are a first lien on producing farms in the fertile Black Lands of Central Texas. We loan 35% to 50% only on our own conservative valuation. We then sell the original mortgage, which has coupons attached like a bond, payable through your own Bank and the National City Bank in New York City.

Let us explain mortgage buying to you. Send for our interesting, illustrated booklet, W-5, and list of offerings.

Our Valuations are Your Protection

Ward-Harrison Mortgage Co
Fort Worth, Texas

IMPROVED
California Real Estate
AS SECURITY

5½%
Guaranteed First Mortgage Certificates

Written in any multiple of $100 from $500 to $100,000, and to run for any period from Two to Ten Years.

6½%
Unguaranteed First Mortgages

Sold with our recommendation and covering carefully selected Farm Property. We refer to any banking institution, also to Dun or Bradstreet.

Mortgage Guarantee Company
James H. Adams, President
Paid Up Capital—Two and One Half Million Dollars
No. 626 So. Spring St., Mortgage Guarantee Bldg.
Los Angeles, California.

The strongest Mortgage Guarantee Company in the United States outside the City of New York.

Real Security

comes first in the individual investor's desires. He gets that in our Farm Mortgages *and more*—a larger interest return than in other forms of conservative investment, 6%; *and still more*—no fluctuation in interest rate, no "high" or "low" quotations, but just a steady investment with definite interest paid regularly.

That is the situation of our investors. We have had 22 years' experience in selecting the best Farm Mortgages for them. Will you not write us for our interesting, illustrated Booklet? It may help to solve your investment problems. Ask for Booklet 313.

Oklahoma Farm Mortgage Co.
Oklahoma City, U. S. A.

Here Are a Few of the Advantages of an Investment in Calvert Mortgage

6 PER CENT
Certificates

They are issued in small amounts—even multiples of $100.

They are short term—two years—and payable on demand at any time thereafter.

They draw 6 per cent. interest for every day of their life.

They are amply secured by First Mortgages on improved real estate deposited in trust with a strong trust company.

They are issued by a company that in 19 years has never been a day late in the mailing of interest checks or repayment of principal.

Write today for the booklet telling the whole story

CALVERT MORTGAGE COMPANY
1068 Calvert Building **BALTIMORE, MD.**

North Dakota and Montana
First Farm Mortgages
Yielding Six Per Cent.

No safer security for the conservative investor than a mortgage on an improved farm in North Dakota or Montana. Our mortgages are carefully selected, taken only through our own Offices and are made with our own money. Many of our customers are Banks and Trust Companies. What better evidence of security can be had? We have mortgages in large or small amounts.

Write for
Current Lists and References

BICKELL, KYLLO & COMPANY
Incorporated
Towner, North Dakota

A Safe Attractive Investment

Capital is recognizing the value and safety of OKLAHOMA Farm Mortgages.
We confine our loans to high-grade farms in parts of Oklahoma with which we are familiar.
Over $2,500,000 sold and not one dollar lost, is our record.
Write us for details—learn how your capital earns more through us than elsewhere. Our booklet and references will interest you.
Address:

GEO. R. FISH, Investment Banker
ARDMORE, OKLAHOMA

6% NET
38th YEAR

SAVE SMALL SUMS

You could accumulate more cash capital in a very few years by saving up comparatively small sums of money — your dividends and interest income, for instance.
You probably never seriously considered such a thing, because the amounts looked so small and no opportunity has ever before offered itself to you to save and invest only $25.00 at 6 per cent interest. There is no need for you to wait until you have saved up $2,000, $500, or even $200 with which to buy one of our mortgages in order to secure a 6 per cent investment with us. Our Certificates of Deposit yield 6 per cent, payable semi-annually—the same as our mortgages—and are withdrawable after one year, on 30 days' notice. Send $25 today; ask for Loan List 708.

Perkins & Co. FINANCIAL BROKERS
LAWRENCE. KANSAS

For 56 years we have sold
Iowa Farm Mortgages

Over a *Thousand Dollars* a Day of interest paid to clients without delay or loss. Address for details, Mortgage Dept.

Leavitt & Johnson Trust Company
Waterloo, Iowa

Farm Mortgages Guaranteed

Central Texas **6%** *Thirtieth Year*

Write for particulars
THE W. C. BELCHER LAND MORTGAGE CO.
FORT WORTH, TEXAS
Capital and Surplus $520,000.00

7% and Safety

Our mortgages are First Mortgages on choice, improved property in the prosperous city of Pensacola. Investment in them means not only a 7% net return but also A-1 security.

In the past thirty years we have placed more than $14,000,000 in these loans without a single loss to an investor. Write for illustrated booklet and complete information.

The Fisher Real Estate Agency
Department M
Pensacola Florida

Bonds and Mortgages

District Municipal Bonds carefully selected from the principal Cities in the State of Washington to yield investors 5½% to 7%. We have marketed several million dollars of these bonds without a single case of default in interest or principal.

First Mortgages on improved Seattle property, interest 7% payable semi-annually accompanied with certificate of Title Insurance, Appraisement, etc. Our loan limit does not exceed one third of the valuation of property. All securities handled by us are bought outright. The personnel of our company are bankers of long practical experience. Address

ERIKSON, JOHANON & CO.
Investment Bankers
Erikson Building Seattle, Washington

6% FIRST FARM MORTGAGES

Amounts to suit your needs

6%

Secured by rich agricultural land in the fertile Northwest worth three to five times amount of loan. 31 years' experience without the loss of a dollar.

"We're Right on the Ground" and know conditions thoroughly. Write for Booklet "U" and current list of offerings.

E. J. LANDER & CO.
Grand Forks, N. D.
Established 1883. Capital and Surplus, $400,000

7% ALBERTA, CANADA FARM MORTGAGES 7%

We offer first mortgages on improved Alberta farms to net you 7%. All property held under Torrens Titles guaranteed by the Government. Every mortgage secured by property worth from three to five times the amount of loan. There is no method by which you can so easily and effectively safeguard your interests as by investing in first mortgages.

Send for Booklet No. 6

HULBERT-PHILLIPS & COMPANY
Hulbert Building Whyte Avenue
Edmonton, Alberta

References: Imperial Bank of Canada; Canadian Bank of Commerce
Royal Bank of Canada

6% Northern Bond & Mortgage Company's SERIES A Debenture Bonds

Secured by

RealEstate

First Mortgages and Municipal Improvement Bonds

more than sufficient to guarantee both principal and interest deposited with the Northern Bank & Trust Co., Seattle, as Trustee. A safe, sound and convenient form of investment, issued in units as small as $50. Maturity date set by buyer at time of purchase.

Write for our booklet fully describing these bonds

NORTHERN BOND & MORTGAGE COMPANY
1408 Fourth Avenue Seattle, Wash.

FARM MORTGAGES

5½% to 6%. First mortgages on working properties located in an unusually rich agricultural territory, offer the soundest and most attractive kind of an investment. There is no speculation — the value of the land does not fluctuate and the income is certain.

We offer *only* first mortgages on paying farms in South Dakota. Over $3,500,000 loans have been placed by us without a dollar's loss to an investor. Interest and principal promptly remitted.

Write for references and list of offerings

G. W. HART, Pres., Merchants Bank
BRYANT, SOUTH DAKOTA

A Careful Investigation of Our

6% AND 7%

First Mortgages

Will prove to anyone that these substantial investments in Farm and City Mortgages are practically without hazard.

They are appraised by experts of experience and every care is used in their protection. Write for list B before placing investments.

SESSIONS LOAN & TRUST CO., MARIETTA, GA.

Double the Interest on Your Savings

6%

Our mortgages are a splendid example of a conservative investment. From them you get not only a good return on your money, but what is more important, your money is absolutely safe, as they can be converted into cash in normal times, at a moment's notice.

Write for Booklet C. 100

Bonfoey Loan & Inv. Co. 815-818 State National Bank Building - - Oklahoma City

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Our First 6% Montana Farm Mortgages

are secured by improved, productive farms in the State of Montana, conceded to be the premium wheat, oats, and alfalfa belt of the United States.

We have just received from the press our NEW ILLUSTRATED BOOKLET and LITHOGRAPHED STATE MAP, which thoroughly describe this section. These are free for the asking. Write to-day.

The Banking Corporation of Montana
Paid In Capital, $500,000.00
P. O. Box A. Helena, Montana

5% DANFORTH FARM MORTGAGES 6%

Will bear the closest investigation. Our territory is limited to localities where values are tried and permanent.

Fifty-six years' experience in lending on farm lands without the loss of a single dollar means something to persons who want safe investments.

Write for our new List of Mortgages No. 54.

A. G. DANFORTH & CO., Bankers
Founded A. D. 1858 WASHINGTON, ILL.

MUNICIPAL BONDS

"THE SAFE INVESTMENT"

Exempt from Federal Income Tax

Following is a carefully selected list of Municipal bonds. We are making exceptionally low prices, and advise Buyers both large and small to invest now.

$115,000	Mineral Wells, Texas, 5% School & Street Improvement Bonds to net about	5%
25,000	Smith County, Mississippi, 6% Road District Bonds to net about	5.70%
10,000	Wood River, Illinois, 5% Improvement Bonds to net about	5¼%
10,000	Leonard, Texas, 5% Water Bonds to net about	5.15%
45,000	Punta Gorda, Florida, 5½% Permanent Improvement Bonds to net about	5½%
15,000	Wendell, North Carolina, 5% Electric Light Bonds to net about	5.15%
45,000	Mohave County, Arizona, 5% Court House Bonds to net about	4¾%
8,000	Llano County, Texas, 4% Bridge Bonds to net about	5%
8,000	Burnett County, Texas, 4½% Bridge Bonds to net about	5%
5,000	Bay City, Texas, 5% Street Improvement Bonds to net about	5%
1,000	Creek County, Oklahoma, 6% Funding Bond to net about	5⅝%

J. R. Sutherlin & Co., Municipal Bonds Commerce Building Kansas City, Mo.

6% **Washington Farm Mortgages**

Our conservatively placed loans on income-bearing property yield the highest interest rates consistent with safety.
We collect and remit without charge.

Write for Mortgage List No. 115

Spokane City Mortgages 7%

Mechanics Loan & Trust Co., Spokane, Wn.

7% **FIRST MORTGAGE SECURITY**

In the golden west—in the land of big opportunities—interest rates are high—because money may earn so much. The securities are first mortgages on improved real estate in one of the most substantially prosperous of all western cities, Oklahoma City. Investments such as you would like to hunt out for yourself, we have found for you—safe-guarded with every precaution. We are on the ground—know the territory—know the possibilities and **have never lost one dollar** of principle for our clients, nor missed an interest payment.

The values are three times the money loaned. Write for our free booklet describing our methods, lists of loans, etc., from $150 to $10,000. References by permission: The Guaranty Bank, Oklahoma City; State National Bank, Oklahoma City; First State Bank, Tallequah.

THE AURELIUS-SWANSON COMPANY 20 State National Bank Building Oklahoma City, Okla.

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They are Becoming Better Known by All—Ask Your Bookseller

THE LONG EXPECTED EUROPEAN WAR

FOR THE STORY OF THE UNDERLYING CAUSES READ

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SECOND EDITION

By WILLIAM M. SLOANE, Seth Low Professor of History, Columbia University

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"... a glorious masterpiece in power, sonority, singing quality and perfect harmonic effects."

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"The beauty of the tone, the power of its resonance, and the perfection of its mechanism..."

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Steinway Hall
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Subway Express Station at the Door

Science can pay no higher tribute

FOR this Gold Medal represents the Grand Prix of the jury of the International Congress of Medicine—the world's greatest medical gathering. Convening once in four years, the Congress assembles the foremost physicians of every country of the globe, and its deliberations bear the stamp of *final* authority. So when under the auspices of such a tribunal, to Sanatogen alone among the many foods and tonics exhibited, is awarded the Grand Prix—there can be no question of Sanatogen's standing as the best and most dependable food tonic.

More than 21,000 physicians have already signified in writing their *personal* faith in Sanatogen. But this award symbolizes the *world-wide*, professional recognition of Sanatogen as the one, rational FOOD-tonic that feeds and rebuilds impoverished cell and tissue, helping digestion and recalling the strength and vigor of youth.

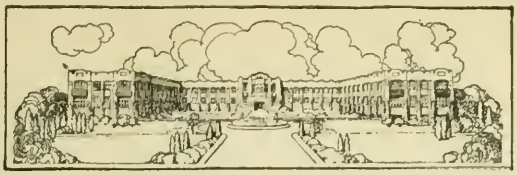
Sanatogen is sold by druggists everywhere in 3 sizes, from $1.00 up.

Send for Elbert Hubbard's new book —"Health in the Making." Written in his attractive manner and filled with his shrewd philosophy together with capital advice on Sanatogen, health and contentment. It is free.

THE BAUER CHEMICAL CO.
26-L Irving Place New York

SANATOGEN
ENDORSED BY OVER 21,000 PHYSICIANS

THE TALK OF THE OFFICE



"To business that we love we rise betime
And go to 't with delight"—*Antony and Cleopatra.*

MAGAZINE MAKING IN WAR TIME

THE September issue of the *World's Work* had gone to press and a number of pages were printed when the European conflict broke out.

It seemed to the people who make the *World's Work* month by month a poor performance to print a magazine covering contemporary happenings, which in comparison with the war in Europe appeared unimportant and trivial. We began by discarding the September number we were already printing, and then looked about to see what the magazine could do that was effective and different from the newspapers.

It did not take us long to discover that everybody was asking questions, to which practically nobody knew more than a few of the answers. War conditions, the like of which had never been heard of before, made a demand for information which could only be secured by reference to many experts, many books and atlases. Within a week, our own editorial staff, assisted by other literary writers, had prepared this Manual which you hold in your hand. We trust that our readers will find it of value and that it will make their daily study of the newspapers more interesting.

OCTOBER PLANS

In October we shall return to a more normal magazine, because, after all, the United States is going on with its affairs, which are important for its own sake as well as for its European neighbors; but in this issue, too, we shall have what we think will be some rather unique features.

ANOTHER AND GREATER MANUAL

In November we plan a number which in its far-reaching effect we think will exceed any issue of the *World's Work* yet put forth. We are gathering together all the facts concerning the next great move resulting from the conflict in Europe and the part the United States will play. As the present number is devoted to the arts of war, the November Manual will be concerned with the arts of peace and reconstruction, under the title:

UNITED STATES
THE REBUILDERS

Our obligations, opportunities, and potential power in diplomacy, trade, finance, and shipping at home and overseas.

Think for a minute of the vast importance of this extraordinary condition and how much we need *facts* and only *facts*. Here (and there are many others) are some of the subjects covered.

THE UNITED STATES AS A WORLD BANKER

Our store and influence upon the control of gold.
The one great wealth-producing country in this crisis.
The new position of New York as the financial centre.
Our period of training for greater things in finance.

THE NEW EXPORT OPPORTUNITIES

What shutting off the world's supplies to foreign markets means.
Shall American manufacturers take a narrow or broad point of view?
How to secure new trade and to care for it.
The value of a real guarantee vs. easy selling.
The old story of bad packing — is it to be overcome?
The need of new training and new efficiency in foreign trade.

WHERE THE TRADE WAITS

South America: Its great and increasing demands and the German position. Our new popularity aroused by the A. B. C. arbitration.
The East and its needs — shipping and banking problems.
Africa: A new and improving market.
The Fighting Nations: What they need from us. A study of cause and effect.

THE AMERICAN WORKER

What it means to him that 18,000,000 workers have gone to war and have become consumers instead of producers.

OUR COLONIES

The lack of popular interest in our overseas possessions.
Shall we develop them on a more effective plan?
Lessons to be learned from English Colonial management.
How to increase exports and imports — an exchange of commodities.

AMERICAN POPULARITY IN FOREIGN LANDS

What must be done to improve our reputation in the world's markets.
Quality and high standard of business ethics.
The value of a guarantee which is genuine.
How are we to advertise ourselves and our goods as a nation?

ENGLAND AND OUR TIES OF BLOOD

How the Anglo-Saxons are drawing together.
Coöperation with Great Britain, the world's masters at sea.
What England needs from us.

INVESTMENTS

Securities owned abroad and now on forced sale.
The position of real estate.
New activities.

THE GREAT MELTING POT

Our foreign population.
Who are they and just how valuable?
The new patriotic appeal.

THE FARMER'S DAY

The world's dependence upon the American farmer.
New agriculture and its opportunities.
The possibility of new crops for new markets.
Sugar and Germany.

AMERICAN DIPLOMACY

The new sphere of influence.
What our Ambassadors have done and are doing.
"Cards on the table" diplomacy vs. indirection.

AMERICAN TRAVEL ABROAD

What it has meant in numbers, money, influence, etc.
For the immediate future reduced or cut off.

PERSONALITIES

Men who are active in this work of rebuilding.

WHAT THE U. S. A. SHOULD DO FIRST

A series of short articles by well known authorities.

GOVERNMENT COÖPERATION AND FOREIGN TRADE

How is it with us? Will the tendency be constructive and show a new spirit of coöperation?

THE WAR MANUAL IN PERMANENT BINDING

There has appeared a demand for the War Manual in a more permanent form and we have made an edition in cloth binding for 50 cents a copy and in fine flexible leather for $1 a volume.

May we suggest to our readers that if they find this number of the WORLD'S WORK interesting, they help us to get new subscribers by sending a three months' subscription to a friend? One three months' subscription, 50c; two three months' subscriptions for $1.00. Use this coupon.

DOUBLEDAY, PAGE & COMPANY
GARDEN CITY, N. Y.

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The Truth Set Forth

Why Royal Baking Powder is superior to an alum baking powder. An answer to inquirers.

In Royal Baking Powder the leavening gas is produced by the admixture of bicarbonate of soda (baking soda) and cream of tartar. Cream of tartar is of fruit origin—from grapes.

In an alum baking powder the leavening gas is produced by the action of the acid property of the alum upon the bicarbonate of soda.

The alum powders therefore leave in the food a mineral salt, sulphate of soda (Glauber's salt) and aluminum hydrate. These residues cause the objection of hygienists because they are believed to have a deleterious effect upon the alimentary organs.

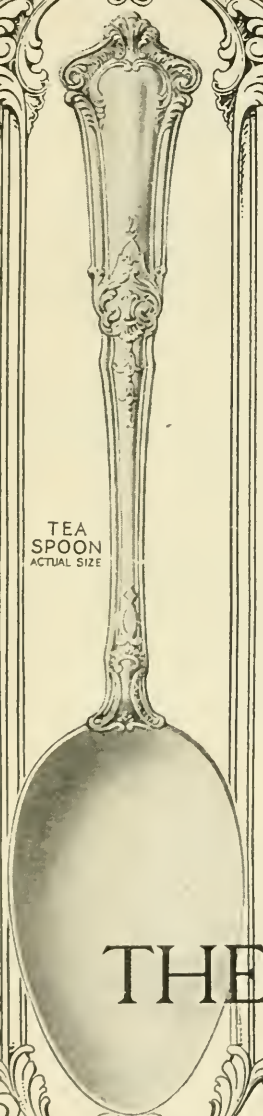
Royal Baking Powder leaves none of these objectionable products or compounds in the food. This is why Royal Baking Powder is the most healthful.

ROYAL BAKING POWDER COMPANY

STERLING

The Albemarle

The newest production of The Gorham Company—a design of great dignity and beauty.



The Albemarle pattern strikes a golden mean between the over-severe and the over-ornate. It is of the Georgian period, deriving its name from William Keppel, Earl of Albemarle, statesman and soldier under George II.

As a wedding present to any bride who appreciates original design and best workmanship in silverware, a selection from this pattern will be exceedingly welcome. You may choose either an individual serving piece or a complete chest.

Let your jeweler show you the Albemarle knives, forks, spoons, fancy individual and serving pieces. Each bears this trade-mark

STERLING

THE GORHAM CO.

SILVERSMITHS

NEW YORK

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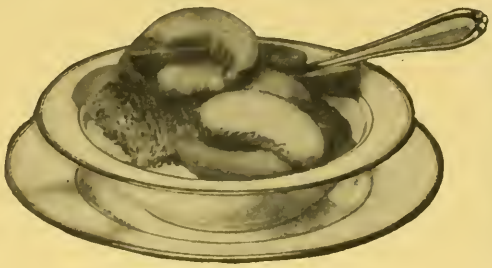
A Five-Cent Banquet



The costliest banquet ever spread, with all the gastronomic concoctions that culinary genius can devise could not contain as much real body-building, digestible nutriment as two

Shredded Wheat Biscuits

the food that contains all the elements in the whole wheat grain steam-cooked, shredded and baked. It is what you digest, not what you eat, that builds muscle, bone and brain. The filmy, porous shreds of whole wheat are digested when the stomach rejects all other foods. Two Shredded Wheat Biscuits, with milk or cream and sliced peaches, make a complete, perfect meal at a cost of five or six cents.

Always heat the Biscuit in oven to restore crispness; then cover it with sliced peaches or other fresh fruit and serve with milk or cream. Try toasted Triscuit, the shredded Wheat Wafer, for luncheon with butter, cheese or marmalades.

"It's All in the Shreds"

Made only by

The Shredded Wheat Company

Niagara Falls, N. Y.

COLGATE'S

RAPID-SHAVE

TRADE MARK

POWDER

1. "Shaving's a torture with my tender skin."

2. "What! No more new blades. What a nuisance!"

3. "Hello here's this sample of Colgate's Rapid-Shave Powder. 'Rapid, eh!'"

4. "It's got to be a 'rapid shave for me *this* morning. Only a dull blade, too."

The Powder That Shortens the Shave

Wet the brush—sprinkle with a little powder—then *lather.*

The abundant lather starts to soften the beard as soon as the brush touches the face. It is worked in while it is worked *up.* No rubbing in with the fingers is necessary.

Softening—Soothing—Sanitary

A little of the powder makes a plentiful, creamy, "smartless" lather. The powder you use, is *your* individual shaving soap—there is clean, fresh soap for every shave.

Such luxury of lather is to be found in two other preparations—Colgate's Shaving Stick and Colgate's Perfected Shaving Cream. Thus you have your choice of method in the Colgate Quality—the lather always the same.

Send 4 cents for a trial size of the Stick, Powder or Cream, or 12 cents in stamps and we will send you also a trial size of Lilac Imperial Toilet Water.

COLGATE & CO.

Dept. T. **199 Fulton St., New York**

Makers of Cashmere Bouquet Soap—luxurious, lasting, refined

5. "'Sprinkle a little powder on the wet brush'! Simple, isn't it?"

6. "'Lather your face,' Myl That's fine. It certainly is rapid."

7. "Isn't that smooth! And I thought the blade was dull."

8. "That blade did pull yesterday. It must be this powder that makes the difference."

9. "Plenty of time for breakfast this morning. I only wish I had another face to shave."

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